

THE ATLANTIC MONTHLY



VOLUME 155 NUMBER 5

MAY 1935

'SO CONCEIVED AND SO DEDICATED'

BY WILLIAM F. RUSSELL

IN a recent publication Mr. Hoover states that the American people are faced by the 'issue of human liberty.' 'The whole philosophy of individual liberty is under attack,' he says. 'In haste to bring under control the sweeping social forces unleashed by the political and economic dislocations of the World War, by the tremendous advances in productive technology during the last quarter century, by failure to march with a growing sense of justice, people and governments are blindly wounding, even destroying, those fundamental human liberties which have been the foundation and inspiration of progress since the Middle Ages. . . . Men and women have died . . . that the human spirit might be free . . . at Plymouth Rock, at Lexington, at Valley Forge, at Yorktown, at New Orleans, at every step of the Western Frontier, at Appomattox, at San Juan Hill, in the Argonne.'

'Liberty,' continues Mr. Hoover, 'is freedom to worship, to think, to hold opinions, to speak without fear, to choose one's own calling, to develop his talents, to win and keep a home sacred

from intrusion, to rear children in ordered security, to earn, to spend, to save and accumulate property honestly.'

This is an expression of a political faith, and to-day 'voices of discouragement join with voices of other political faiths to assert that an irreconcilable conflict has arisen in which liberty must be sacrificed on the altar of the Machine Age. . . . Once again the United States of America faces the test whether a "nation so conceived and so dedicated can long endure." Although he does not say so directly, Mr. Hoover implies that recent governmental measures have gone so far toward national regimentation that they violate the liberties of the American people, and hence are in conflict with the American tradition.

But Mr. Hoover is not the only critic of the New Deal. There are cannons to the right and cannons to the left, and they all volley and thunder. Some view the future through red-colored spectacles, and some through blue, and the administration turns the other cheek. The New Deal is too

Copyright 1935, by The Atlantic Monthly Company, Boston, Mass. All rights reserved.

radical; the New Deal is too conservative. It has gone too far; it has not gone far enough. In the club car, in the locker room, and at the nineteenth hole there is one opinion; over the dinner pail there is another. To one group President Roosevelt is almost a communist; to the other, the epitome of capitalism.

To illustrate the opposition of the left wing, I turn to the publications of a movement known as New America. The origin is given as Chicago. I know nothing of the organization, save that some of its directors are members of the Continental Committee on Technocracy. It has a Youth Section. Many of its statements are reminiscent of those of certain professors that I know. In its publications it has adopted the pamphleteering technique used by the Jacobin Clubs during the French Revolution.

At the outset the argument of this school of thought agrees with that of Mr. Hoover. 'The American nation now stands facing the greatest crisis in its history.' But there the similarity ceases. 'Have you lost your job?' New America asks. 'Is your child through high school, through college, and now can't get a job, or a decent kind of a job? Have you lost your savings? Has your mortgage been foreclosed? The economic machine has broken down. Millions have been deprived of security . . . they are losing their savings, their homes, their farms, the opportunity to educate their children.' 'We stand,' it says, 'confused and baffled . . . between disastrous economic and social breakdown on the one hand, and unheard-of economic and social possibilities on the other.' The American people have had 'their heritage taken away from them,' and they are now being 'denied their future' by the profit system, which we are urged to destroy, and to inaugurate in its stead a new social order. 'The

change must be adequately prepared for, but it must be speedy and thorough.' The goals, reminding one of those of Technocracy, are (1) to 'adjust production to measured consumption requirements,' (2) to 'eliminate private ownership — [making] profit, rent, and interest both unnecessary and impossible,' (3) to 'reduce the time and energy spent in necessary economic pursuit to a minimum,' and (4) to 'end unemployment and crises; abolish poverty; enable maximum prevention of crime and disease, and stimulate the arts and sciences.'

'New America stands for the continuous development of the social order in which there shall be no class divisions or distinctions and no discriminations on account of race or sex; in which all able-bodied persons participate in some necessary function of society; in which the principle of maximum and minimum income obtains.' 'New America springs from American needs — continues the American Revolutionary tradition and plans to realize the American dream of equalitarian social democracy.'

To Mr. Hoover the philosophy of 'National Regimentation' is 'the very negation of American liberalism.' To New America, unless 'the profit system . . . be replaced with a planned and democratically controlled social economy,' we shall not have realized the American dream. Mr. Hoover would 'recall our American heritage.' New America, by drawing the 'plans and blueprints of the new society,' would restore the 'ideals which are our American heritage.'

Here we find repeated reference to the same ideals, and at the same time plans for realizing them which are as far apart as the poles. Here we are confronted with diametrically opposed social philosophies which nevertheless appeal to the same justification in history. Is it simply oratory? Are both

sides merely waving the flag? Surely we could not accuse Mr. Hoover of a false interpretation of American history; nor am I convinced that the New America pamphlets are written by ignorant men. Can it be possible that both are right?

II

If one were to ask the thinking American for the ideals of his country, the reply would include such statements as 'life, liberty, and the pursuit of happiness,' 'give me liberty or give me death,' 'our liberties we prize and our rights we will maintain,' 'no taxation without representation,' 'all men are created free and equal,' and 'all governments derive their just powers from the consent of the governed.' Lincoln summed up American ideals when he said, 'Fourscore and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal.' Could liberty and equality as ideals require such diverse means for their realization? To examine this possibility it would be necessary to study the history and relation of the two ideals.

We could begin with the ideal of liberty among the ancients. We could follow the progress toward political liberty through Magna Charta, the Petition of Right, the Bill of Rights, and the Habeas Corpus Act. We could show the development of freedom of worship, thought, and speech; and the gradual realization of the possibility of liberating the powers of man from superstition, disease, and ignorance through the work of Roger and Francis Bacon, Locke, Voltaire, Montesquieu, and Diderot. We could trace the extension of the idea of liberty to industry, agriculture, and commerce by following the physiocrats, Quesnay and Turgot, and later on Adam Smith,

who developed the idea of *laissez faire*; and we should certainly assess the contributions of Condorcet, who not only advocated liberty in all its aspects, but in his report to the National Convention in 1792 revealed the rôle of education — universal, lay, public education — and even adult education as necessary to the achievement of liberty. These ideas were brought to America by some of the first settlers, who wanted liberty for themselves but not for others; and were sponsored in their broader conception by Benjamin Franklin, Thomas Paine, John Adams, and many more. It is interesting to trace the influence of English and French thought upon Washington, Hamilton, and De Witt Clinton, upon Madison, John Marshall, and Monroe. 'Sweet land of liberty' was no accident. The 'land of the brave and the free' did not 'just grow.' It was the culmination of the aspiration and the sacrifice of many generations.

Similarly, the ideal of equality has its roots deep in the past. There is the reference to the camel and the needle's eye. Consider the account of the Peasants' Revolt in England in 1381 and the following extract from a sermon which Froissart attributed to John Ball: —

A ye good people, the maters gothe nat well to passe in Englande, nor shall nat do tyll euery thyng be comon; and that there be no villayns nor gentylmen, but that we may be all vnyed toguyder, and that the lordes be no greater maisters than we be. What haue be deserued, or why shulde we be kept thus in seruage? We be all come fro one fater and one mother, Adam and Eue; whereby can they say or shewe that they be gretter lordes than we be? sauynge by that they cause vs to wyn and labour, for that they dispende; they ar clothed in veluet and chamlet furred with grise, and we be vested with pore clothe; they haue their wynes, spyces and good breed, and we haue the drawyng out of the chaffe, and drinke water; they dwell in fayre houses,

and we haue the payne and traueyle, rayne, and wynde in the felde; and by that that cometh of our labours they kepe and maynteyne their estates.

John Ball, Wat Tyler, and Jack Straw gave their lives for equality, but the ideal went marching on. Sometimes it flamed into open revolt; more often it smouldered behind closed doors. John Locke gave it a great advance when he announced not only that the mind at birth was an empty tablet, but that in consequence all distinctions and discriminations were the result of what went on in the world. Men were unequal only because men themselves made them so. This was taken up by Helvetius and d'Holbach and by that most eloquent moulder of public opinion, Jean Jacques Rousseau. At the time when, in Europe, equality had so many champions, in America it had a home only on the frontier, and in the minds of a few leaders like Thomas Jefferson. Certainly it was not welcome among the planters of the South, the patroons, or among the holders of patents from the king.

III

Liberty and equality sound well together. *Liberté* and *Égalité* grace as an inscription many buildings in France. Lincoln coupled the two ideas in the Gettysburg Address. But they have never liked each other. Liberty and equality have always been locked in a struggle of life and death. Voltaire was caustic in his comments on Helvetius and Rousseau. Turgot ridiculed d'Holbach's ideas. Hamilton, the exponent of liberty, and Jefferson, the advocate of equality, fought all their lives.

The French Revolution admirably illustrates the conflict. The National Assembly, first in control of the liberals, the believers in liberty, men like Mirabeau and Camille Desmoulins, drafted the Declaration of the Rights of Man,

to guarantee freedom of the person, freedom of worship, freedom of speech, and freedom of the press; and it tried to liberate commerce and industry, by legislating the government out of business. Then came the National Convention, and Marat and Robespierre with their passion for equality, which not only put the government back, but even guillotined the wealthy. 'The deepest cause which made the French Revolution so disastrous to liberty,' says Lord Acton, 'was its theory of equality.'

The struggle between liberty and equality is equally apparent in our own history. Equality loomed large in 1776 and stood first in the Declaration of Independence. By 1787 it had waned, Jefferson was in France, and liberty was supreme in the Constitutional Convention. The *Federalist* papers, written by Hamilton, Jay, and Madison, in justifying the proposed constitution to the people, made not a single reference to equality.

If we were to paint the canvas with broad swift strokes, I should say that the equalitarians drafted the Declaration of Independence, and the Ordinance of 1785; the liberals drafted the Constitution, and held the power until the time of Andrew Jackson. The liberals founded the colleges and fostered the local control of schools, but it was the equalitarians who built up school funds, demanded state departments of education, and developed our system of public schools. It was workmen's societies and fraternal organizations that formed the support of Horace Mann, Gideon Hawley, and Henry Barnard.

We have always had organizations in the United States that preferred equality to liberty. There have been Coxey's Armies, I. W. W.'s, Nonpartisan Leagues, and Single Taxers. They say with New America, 'Why must millions go undernourished and under-

clad? Why must 90 per cent of farm homes, 80 per cent of those in villages, and 35 per cent in towns be without sanitary plumbing? Why must millions be deprived of the sports, the travel, the scientific knowledge which the few now enjoy?'

These are the same questions which John Ball asked 554 years ago. Can't we have equality? Certainly, say the technologists. Assuredly, say the 'Frontier Thinkers,' but we must have a new social order. Why? This depression is not like any other depression. Technology, particularly since the World War, has made such changes that we may term our times the Second Industrial Revolution or the Power Age. Just as the invention of the spinning jenny and the power loom once changed the whole fabric of English society, so modern technology is forcing profound alterations in our social structure. The present situation is different from any that has gone before, because modern business enterprise for the first time is able to bring 'under one central control all necessary raw materials and fuel resources, the mechanism of transport and communication, the mechanism of fabrication and assembling of parts to produce the completed article of consumption.'

Formerly this unification was impossible. Capitalists had to wait until four developments had been achieved: great central generating stations capable of 'transmitting power over long distances,' 'machines of great force and cleverness,' 'vast and precise machine tools with which to make these machines,' and 'precise measuring instruments,' without which quantity production would be confined to products of the cruder sort. With these four essentials the great organizations of industry, operated according to new techniques, can produce by straight-line methods the necessities of man in great quantities at little cost, and with

little human labor. 'Stuart Chase now estimates,' — I again quote from New America two years ago, — 'allowing for new machines and methods, with a forty-hour week, 12,200,000 will be out of work in 1934.' These Frontier Thinkers claim that we can produce faster than we can secure the means to purchase, that the present price system, private ownership, and all the economy of a capitalistic society based upon *laissez faire* have broken down, and that technology will destroy us. With Rugg they view the past and state: 'This depression is not a mere fourteenth installment paying time [referring to thirteen previous depressions]. *It is a day of inventory and final reckoning.*'

But, say the Technocrats, we can save this society. We can give everybody an equal treatment. We will provide everybody, not with a happy hunting ground, not with ten acres and a mule, but with everything he could buy if he had an income of \$20,000 a year (Howard Scott) or \$4000 a year (Goodwin Watson). We will give you equality. To be sure, we must have a planned economy. Considering America as a unit from the Panama Canal to Hudson Bay, we will organize the entire social and industrial life. We will determine by techniques that we have mastered the capacity for consumption of the American people and we will plan production to match it. We will keep the machinery of production and consumption running evenly. We will readjust at intervals when necessary. We will tell people what work they are to do, and provide everybody with everything that it is good for him to have. All this can be done, say the Technocrats, by adults of twenty-one to forty-five working for a few hours a day for a few days a week. There will be no depressions, no money, prices, debts, taxes, bankers, lawyers, insurance, poor relief, or charity.

And there will be no liberty, either, say the liberals. This is the social order they are trying to establish in Russia, in Italy, and in Germany. The Frontier Thinkers, the Technocrats, the Communists, can talk all they like about democratic control. It will not work that way. Even the slight efforts in this direction under the New Deal show that orders go with control. True, it may bring a little more equality, but, 'Give me liberty or give me death.' True Americans, as contrasted with New Americans, would rather live without a bathtub and be free.

IV

So to come back to our original argument. When Mr. Hoover refers to America in Lincoln's words as 'a nation so conceived and so dedicated,' he is thinking more of 'conceived in liberty' than of 'dedicated to equality.' New America, in referring to American ideals, is thinking more of equality than of liberty. In fact, it dismisses freedom with a few generalities. Nevertheless, both are in the American tradition.

The trouble is that the American Dream is double, and liberty and equality harmonize only in speech. The words look well together, but the ideas behind the words have always been in conflict. If you have liberty to the full, you cannot have equality. If you have equality to the full, you cannot have liberty. If you have more liberty, you will have less equality. If you have more equality, you will have less liberty. Up to now America has adopted the policy of the middle course. We say we want just as much liberty as we can have with some equality; or just as much equality as we can have with some liberty. During some periods the pendulum swung toward liberty; at others toward equality. Never was the trend toward liberty strong enough to

satisfy a Hamilton. Never was the trend toward equality powerful enough to satisfy a Norman Thomas or an Upton Sinclair. We pursued a middle course.

And in this case a middle course, a synthesis, a compromise, if you will, is the *strong position*. We have seen extremists in either direction bring destruction in their wake. For men are so constituted that they want both liberty and equality; and they cannot eat their cake and have it too. Hence, half a loaf is better than no bread.

The political economist in the United States has no pattern to follow; so we cannot aim at either extreme. We want as much liberty as we can get, but only so much as will be consistent with the equality we want. This will demand the delicate sense of balance of the artist or philosopher. It will require a process of feel and fumble, of trial and error, of adjustment and readjustment, and gradual approximation. This is what we have had for one hundred and fifty years. It is the only road to success.

V

When Americans come generally to realize the double characteristic of their national aims, they will see more clearly and be more charitable to the similar division in the ranks of our educators. There we have liberals and equalitarians, too. Educators who hold more to liberty are not advocating radical changes in our school system. They do not think that we need a new social order, hence education does not have to build one. It is their belief that the future citizen should be trained upon well-recognized precedents. They will give him a liberal education, — that is, an education fit for a *liber*, a free man, — and they will try to make him resourceful and independent. They will do their best to promote simplicity, probity, charity, and patri-

otism, and to provide that curb on selfishness and greed which only a good education can provide.

But there are also equalitarians in education. They believe that education has a new function to perform in this world. Education must lead the way. Professors and teachers must envision the new social order, and, in the schools and through the schools, lead our country toward it. 'If the school is to justify its maintenance and assume its responsibilities,' says the *Report of the Social Studies Commission of the American Historical Association*, 'it must recognize the new order and proceed to equip the rising generation to coöperate effectively in the increasingly interdependent society and to live rationally and well within its limitations and possibilities. As education continues to emphasize the philosophy of individualism in economy, it will increase the accompanying social tensions. If it organizes a programme in terms of a philosophy which harmonizes with the facts of a closely integrated society, it will ease the strains of a transition taking place in actuality. The making of choices cannot be evaded, for inaction in education is a form of action.'

'From this point of view, a supreme purpose of education in the United States, in addition to the development of rich and many-sided personalities, is the preparation of the rising generation to enter the society now coming into being through thought, ideal, and knowledge, rather than through coercion, regimentation, and ignorance; and to shape the form of that society in accordance with American ideals of popular democracy and personal liberty and dignity.'

Thus in education we also have two groups, one for a continuation and gentle amelioration of the past, one for a new social order; one to improve the present economic system, one to substitute for it something radically dif-

ferent. One speaks of recovery and regeneration, the other of 'a whole new civilization'; one thinks of liberty more than equality, the other of equality more than liberty.

I suppose that most schoolmasters belong to one camp or the other — and, having made their choice, they wonder how anyone of good sense could belong to the other. In a university known to me, where there are many professors and students divided into these two schools, with all sorts of gradations from right to left, much light has been generated, and considerable heat. Hardly a day passes but some student, professor, alumnus, citizen, or journal requests me to curb the speech and thought of some professor. As one alumnus wrote me: 'Everyone was greatly distressed at what happened at Cleveland. I was told it was a current expression to say, "We have been talking a good while about the little red schoolhouse; now we shall have to talk about the Big Red University." The Frontier Thinkers seem to think that schoolmen can lead this nation in the political-economic sense. That is to laugh. They have their part to contribute, to be sure, but the nation is not looking to them for the rôle of Moses.' And in cases like these it is always suggested by the ardent exponent of either extreme that the other extreme be forced to 'cease firing.' To this I think I might agree, if it were perfectly plain that one extreme was right.

But in the search for social justice and the good life the social ideals of liberty and equality must both be considered, and must both have a part. If John Ball or Jean Jacques Rousseau or Karl Marx or other advocates of equality had had full power, it is possible that we should have had more bathtubs in the remaining 90 per cent of the farm homes, 80 per cent of village homes, and 35 per cent of town

homes; but we should probably have orders from Washington as to when to take these baths. If Voltaire, or Mirabeau, or Hamilton, or John Adams had had full sway, we should probably have had lords, dukes, and barons, college preparatory schools for the few, and the rest of the pupils in CCC Camps. It required the constant conflict of the two ideas to reach the Golden, or, should I say, the Golden-and-Silver Mean.

The easiest thing in the world is to go to an extreme. The next easiest is to make a compromise, to effect an average, to blow neither hot nor cold. But in this case the middle course is the strong course. This is not the first time that men and women thought the world was entering upon a new civilization. It has happened over and over again. There are two kinds of waves on the ocean, the little waves that we see, and the great waves, the results of which are the tides. The period since the World War is a little wave. The period since John Locke and Voltaire down to the present is the big wave, and we must not confuse the little with the big. During this period of time, in Europe and the United States, and in some measure elsewhere, men have been trying to achieve the ideals of liberty and equality. The leaders in this movement are not only John Dewey but also John Ball and John Locke. Not only Thomas and Tugwell, but also Turgot; Montesquieu, Mill, and Moley; Counts and Conдорcet. These leaders have been op-

posed by kings and princes, and are being opposed by merchant kings and merchant princes. Some thinkers were exiled, others spent years in prison; but their ideas winged free.

Our safety in the United States, and the progress of our people toward a happy life, depend upon the degree to which we can effect a compromise between our desires. No philosopher is going to think it through to our satisfaction. No political scientist will suit us with a plan. Our only hope is full, free, frank, open discussion from all sides, open propaganda, open influence upon the press, upon public opinion, upon our Congress and legislators, and upon our governors and President. Whoever thinks, let him speak. Whoever would muzzle another, let him stay his hand. Bring on the opposition. Let it be heard. Then shall we have all the forces in full play. Where we have too much liberty and too little equality, we can readjust. Where we have too much equality and too little liberty, we can modify. There may be areas where we have neither. Then we can abolish and create. Let the whole orchestra sound forth. Then in time we can hope that this nation, 'conceived in liberty and dedicated to the proposition that all men are created equal,' may begin to achieve here on earth that happy combination of the opposing ideals which will yield the best of each — and at long last reach the goal for which our ancestors have sacrificed and struggled and prayed these many years.

GREAT MEN AND SMALL

BY ESME HOWARD

AT the beginning of the summer of 1888, I was suddenly ordered to Berlin as private secretary to Sir Edward Malet, who, although he was not yet fifty, had been for some time Ambassador in Berlin and was considered one of the most successful men in the Diplomatic Service. His father had been our Minister to Frankfurt in the revolutionary times of 1848-1849 and had there known Bismarck and made friends with him. It seems that Bismarck had been attracted to Sir Edward when he met him as a young man at his father's house in Frankfurt, had followed his career, and, when a vacancy occurred in our Embassy in Berlin, he took the opportunity of hinting that Malet's appointment would be agreeable to him. He continued to be very friendly to Malet up to the end.

Bismarck always used to converse with Malet in English, and his English, though very fluent and perfectly clear, was sometimes rather quaint in its pronunciation. One day Malet came back from one of these interviews much amused and told me that he had not for a long time been able to understand what Bismarck had meant, because the great man had kept on repeating to him: 'Why can't we let bigguns be bigguns?' This completely puzzled Malet, and he did not know what to say. Only after two or three minutes did he discover that the Chancellor's meaning was 'bygones be bygones.'

Edward Malet was sincerely attached to the great man and believed that he was perfectly genuine in his constant assurances of good will to England and his desire for the maintenance of peace in Europe. In both respects I take it that Malet was justified. Bismarck had no wish to compete with Great Britain, either as a maritime or as a colonial power. As he said himself, he was '*kein kolonial Mensch*.' He had united Germany by means of three wars, each of which had been carefully planned beforehand, and he had no wish for further adventures. His one desire seemed to be to guide his country along a path of peaceful and prosperous development by means of a paternal government, he himself acting, of course, in the rôle of paterfamilias. This certainly suited us very well at the time, and there was no reason, as long as Bismarck remained at the head of the German State, — which he could do during the lifetime of the old Emperor, who gave way to him in practically everything, — why Great Britain and Germany should not continue to be the best of friends. There were small tiffs from time to time, but none that gave any serious cause of anxiety, so far as I can remember, while Bismarck remained at the helm. Things, however, were changing very rapidly when I reached Berlin about ten days after the death of the Emperor Frederick, which occurred on the fifteenth of June, 1888.

The first thing that caused me infinite surprise was to discover what I had not realized from the papers, that the Empress Frederick was practically a prisoner in her own Palace at Potsdam. The long-drawn-out agony of the Emperor Frederick's illness had no sooner come to an end than his son, the Emperor William II, then a young man of twenty-nine, ordered a cordon of soldiers to be placed round the Palace at Potsdam where he died and where the Empress was still living, and it was impossible for the Embassy, or anyone else without the special authority of the Emperor, to obtain access to or indeed in any way communicate with her. Even letters and telegrams from her mother, Queen Victoria, do not appear to have been delivered, as I remember indignant telegrams from the Queen to the Ambassador asking why she could not get into communication with her daughter.

The whole reason for this extraordinary behavior on the part of the young Emperor was, it appeared later, that Bismarck and William II both feared that the Emperor Frederick had left behind a diary which might contain unpalatable information about people and things, especially, it was supposed, with regard to the conduct of the War of 1870 and Bismarck's treatment of the Liberal leaders in Germany, with whom the Emperor Frederick was known to have had considerable sympathy. This diary they wished to seize, in order to prevent its possible publication by the Empress Frederick. A minute search was therefore made all through the Palace, and it was not until this search was concluded, but without success, that the Empress was again allowed free communication with the outside world.

The Byzantinism of these proceedings came, I must say, as a great shock to my youthful mind. I had been brought up with an immense ad-

miration and affection for everything German. Here I suddenly found, on arrival in Germany, a method of procedure that was so entirely inconsistent with all my previously held English prejudices about liberty and — if I may say so — decent behavior that I was completely nonplused. As an introduction to German official life, nothing could have been less promising. And I must confess that my experience in Berlin, and everything that I have since read of transactions at the German Foreign Office and at the Court of the Emperor William, have only confirmed the very unfortunate impression I received during that first week of my stay at the Embassy.

Before continuing with a description of the life at the Embassy, I shall refer, very briefly, to the sequel to the story of the Emperor Frederick's diary. It had been confided to Professor Geffcken, of Hamburg, a well-known Liberal, some time before the Emperor died. Many months passed before anything more was heard of it, but ultimately a version of it was published by the Professor. It contained nothing of interest respecting military operations during the War of 1870, but it did contain one item which greatly irritated the Iron Chancellor. This was an entry to the effect that both Bismarck and the old Emperor William I were not in favor of accepting the German Imperial Crown at the hands of the German Princes at Versailles, both being of the opinion that William as King of Prussia should, so to speak, place the crown on his own head. The Emperor Frederick (then Crown Prince of Prussia) went on to relate in his diary that it was he who had overcome their opposition, and so brought about the establishment of the German Empire by agreement with the Princes instead of by imposition from above.

This account of the negotiations that

preceded the declaration of the German Empire at Versailles, the culminating point of Bismarck's great work, roused the ire of the Chancellor as being likely to rob him of some of the kudos rightly belonging to him. In any case poor Geffcken was arrested and condemned to three months' imprisonment for publishing the statement without previous consultation with the Emperor, which was contrary to the Prussian law for the protection of the royal house.

Both Professor and diary have since passed into oblivion, and we shall probably never know what the latter contained.

* * *

During the summer months the Ambassador used to take a charming old-fashioned villa at Potsdam. Potsdam is, or was in those days, a singularly beautiful place. There were not only the lakes and woods, but also the eighteenth-century palaces and gardens, of which 'Sans Souci,' the Palace of Frederick the Great, was especially charming, and besides that the little old-world town itself, with its eighteenth-century houses and cobbled pavements, all of which, I suppose, have long ago given way to so-called modern improvements. Our existence that first summer was an extraordinarily pleasant and peaceful one. We were a very happy family in the Chancery, and the Ambassador was kindness itself.

Malet was rather a strange combination of strict conventionality and etiquette as long as he was in his Embassy in Berlin and of everything opposed thereto as soon as he could get away from ambassadorial surroundings, when his natural inclination for a Bohemian life got the better of him. There was nothing he loved so much as going away for two or three days on a little excursion, it mattered not where, provided he could put up

at some small country inn, his rank unknown to the innkeeper, and just potter about, doing nothing particular and smoking endless cigarettes. I accompanied him on these expeditions on more than one occasion, for he never could go alone. I remember, once, his almost childlike pleasure when, after he had grown tired of some little Prussian town, we packed our few belongings and went down to the station, intending to go on to the next place. Suddenly the spirit of adventure seized him and he said: 'Why should n't we leave it to chance in what direction we go?' Taking a coin out of his pocket, he added: 'Heads it's north, and tails it's south,' and so it was.

Bohemian though he really was, he always expected to be comfortably housed when he went to pay his respects to the numerous German Courts to which he was accredited, and his indignation knew no bounds when on one occasion, at the palace of some Grand Duchess or other, he had not been provided with even a hip bath. He was always very chary of spending a night under the hospitable roof of these numerous Princes after that, and I believe some of them caused complaints to be made to Buckingham Palace in consequence. But for this he cared very little.

He told me a story of the way in which Bismarck treated some of these potentates, who were extremely particular about their own dignity. I suppose he got the story from Bismarck himself, and it was this:—

One evening at a dinner at the Palace in Berlin, Bismarck was placed next to one of the German Grand Duchesses of whom he was not particularly fond. She irritated him by complaining about the lack of courtesy, over some trifling matter, with which her household had been treated by the Berlin authorities. He asked her brusquely if she knew an old house in Unter den Linden

which looked very much out of date in that fashionable street. She said that she had observed it and asked him why he mentioned it. He said that the Municipality of Berlin had been trying, for a long time, to buy it and pull it down, in order to build something more up to date, but had not been able to do so. Then he said, significantly: 'It's much easier to pull down a German Prince than a house in Unter den Linden.' After that she left him alone.

* * *

Bismarck had been for so many years the complete master in the German Reich that it was almost impossible that he and the young Emperor should work together harmoniously for long. From the first, although the Emperor appeared to have most profound respect and admiration for the national hero who had united Germany and was unquestionably the greatest figure in the Europe of that day, people began to wonder how long it would be before a breach occurred, for Bismarck no more hesitated to speak out his mind to the Emperor than to a Grand Duchess at a palace dinner party. He had, indeed, become extremely dictatorial. Whether intentionally or otherwise, the Emperor cleverly chose the subject of social legislation as a reason for a break with the old man.

The German Government had already led the way in what was, for that time, an advanced law with regard to workmen's insurance against old age and sickness. Having myself had to translate and write a report on this extremely complicated piece of legislation, I knew it fairly thoroughly and was very much impressed by its value for the welfare of the working classes. It had given the Emperor's government considerable popularity, from which he personally undoubtedly benefited, and people believed that he

was likely to turn out to be, not as had at first been thought, an ultra-conservative, but, at any rate so far as care for the welfare of the working classes was concerned, quite as liberal as his father would have been. This inclined him toward measures of social legislation which went a great deal further than the old Iron Chancellor was prepared to go. There were said to have been violent scenes between them, and finally, in March 1890, the old man, never dreaming that it would be accepted, tendered his resignation and found himself, to his surprise and indignation, out of office.

Nothing could exceed the astonishment of the German people, and, indeed, of the whole of Europe, when it was discovered that this immense Colossus, whose word had been law in international affairs for so many years, was suddenly removed from power. He himself admittedly took it very ill. The Emperor conferred upon him the feudal title of Duke of Lauenburg, which was higher in rank than that of Prince Bismarck, but, without rejecting it, he would never make use of it. The story went that one day before he left Berlin he received an autographed letter from the Emperor, addressed to 'His Highness the Duke of Lauenburg.' He looked at the envelope and then said before the assembled company: 'Why does he address me in this way when I told him that I should only call myself by that name when I was traveling incognito?'

* * *

The Chancellor's Palace was in the Wilhelmstrasse, only a few doors away from the Embassy. Bismarck left Berlin on the twenty-ninth of March, 1890. Malet had said to me that he would go to the station to say good-bye to the old man, no matter what the Emperor thought. He said: 'I've

known him ever since I was a boy, and he's always been kind to me. I can't let him go, now that he has fallen from favor, without shaking him by the hand. I shall expect you to come to the station with me.'

I, of course, was delighted to be present on such an historic occasion. Malet thought he would drive to the station immediately after the Prince and his family had left, as it would be difficult to pass the cordon of police before. We saw the old Prince, accompanied by his son Count Herbert and one of his enormous Danish dogs, drive past the windows of the Embassy in an open carriage, amidst the wild cheering of a tremendous crowd, to which he, however, seemed to pay little attention. We were just getting ready to enter the Ambassador's brougham when there was a movement in the crowd and the Empress Frederick's carriage drove up to the door of the Embassy. The hour was an early one, at which the Empress had never called before. Malet said to me:—

'I can't think why she has come now, unless it is to prevent me from going to the station to say good-bye, but I shall go, all the same.'

We went down the steps of the Embassy to receive the Empress, and he handed her out of her carriage and accompanied her into the house. He then said:—

'I am very sorry that I must leave Your Majesty to be entertained by Lady Ermytrude [Lady Ermytrude, his wife, was a daughter of the Duke of Bedford], who is waiting for Your Majesty in the drawing-room. I hope Your Majesty will excuse me if I go at once to say good-bye to Prince Bismarck at the station; I fear that otherwise I may not be in time to see him before he goes.'

The Empress graciously signified her assent, and, quite contrary to all rules of etiquette, we left her, jumped into

the carriage, had difficulty in making our way through the streets to the station, and arrived to find the station absolutely packed with cheering, enthusiastic crowds, singing *Die Wacht am Rhein*.

The station master, informed of the arrival of the British Ambassador, at once hurried to Prince Bismarck's carriage to tell him. There was a silence as the Old Chancellor stepped out and came toward us. He was evidently deeply moved by the fact that Malet had dared, in the circumstances, to come and pay him this final mark of respect. They spoke together for a short time, while the crowds remained silent, and I thought I detected—but it may have been merely imagination on my part—a tear in Bismarck's eye. Before he left, Malet introduced me to him, and this was the only time I ever had the opportunity of shaking hands with that extraordinary man. I had seen him many times, but never had been so impressed by his immense size and the massive ruggedness of his face. That was a morning which stands out very vividly among my memories.

* * *

I don't think I am wrong in saying that after this the Emperor William was never quite the same to Sir Edward Malet. It must be admitted, however, that when he came to the Embassy to dine, as he did once or twice every winter, he was always most charming, and he had to a supreme degree what in America is called 'the glad hand,' which made him particularly popular with casual acquaintances.

Judging by the memoirs of German statesmen who served him, William II was not so popular with those with whom he was in daily contact. He was, indeed, distinctly histrionic, always acting his part, and extraordinarily vain; that was, perhaps, his domi-

nating quality. Very quick, but with little judgment and no balance, extremely sensitive, with a mediæval belief in the sanctity of his Imperial Crown, yet essentially weak in character—it would be hardly possible to find, in the history of the ages, a more dangerous man to have been placed, in critical times, in such a position of vast responsibility at the head of the most powerful nation in Europe.

Years afterward in Washington, Miss Mabel Boardman, the niece of Mr. Phelps, who was American Minister in Berlin in 1888, reminded me of the impression he had made upon us at the opening of his first Reichstag, which took place in one of the great halls of the Palace in Berlin. Surrounded by all his Generals, he himself in military uniform, with the great crimson cloak of the Order of the Black Eagle, he stood there, the emblem of military force, and in his peculiarly clear, dominating, and incisive voice began his speech, looking round him as if to see that he was making the proper effect.

‘I . . . William . . . by the grace of God . . . German Emperor . . . King of Prussia . . .’

It is, of course, impossible to reproduce the exact tone, but the effect of it at the time was certainly both impressive and startling. Looking back, it seemed to Miss Boardman and myself that the whole thing was a magnificent piece of play acting.

* * *

The Empress Frederick, I suppose on account of having known my sister and brother-in-law fairly well and having lived for months in their house at Portofino, used, from time to time, to invite me in solitary grandeur to her Palace in the evenings. These were unquestionably the most awful entertainments I have ever attended; not because the Empress or any of those

about her were anything but entirely friendly and kind, but because of the terrific atmosphere of mourning which pervaded the whole place after the death of the Emperor Frederick.

The Empress herself, the three Princesses, and the Grande Maîtresse, Countess Brockdorf, were dressed in crape from head to foot. The long room in which we sat was scarcely lighted, with the exception of one large picture of the Emperor Frederick, the frame of which was draped in crape. This dominated the entire scene and made it almost impossible to forget his tragic death. After the Empress had spoken to me for some time, I used to be turned over to the Princesses, and on one occasion we were even provided with a card table and I was asked to teach them some game. The result of this was that we became lively in spite of our surroundings and even laughed. Countess Brockdorf swept up to me, looking more like a black shadow than a real person, and whispered: ‘The Empress does not like loud laughter.’ It was a relief when these invitations ceased because the Empress went away to live at Homburg.

* * *

In 1890, Sir Percy Anderson, the head of the African Department of the Foreign Office, was sent out on a special mission to Berlin in order to negotiate with the German Government the question, which had recently come to a head, of the partition of East Africa, including Zanzibar, between England and Germany. Both British and German explorers had been busy for some time, as the habit was in those days, planting the flags of their countries in divers parts of the Dark Continent.

These negotiations and the interest they aroused in me with respect to the extension and development of the British Empire in Africa brought to a head a feeling of unrest which had

been simmering in me for the past year or two. I felt I could not continue in the humdrum life of the Diplomatic Service. What was known as 'the call of the wild' possessed itself of me to an ever-increasing degree, and I finally made up my mind to ask the Foreign Office for two years' *disponibilité*. This would give me the opportunity I longed for, of seeing something of those countries about which we had been negotiating and of enjoying the delights of a really wild camp life.

The end of February, 1891, found me in South Africa. The first thing I wished to do was to get into contact with Cecil Rhodes, who was then, for me, a sort of demigod. I left my letter of introduction to him at his curious little cottage not far from Wynberg, which struck me as an amazingly modest abode for a man who was one of the richest, if not *the* richest, in the world at that day, and then, pending an answer, I asked Seymour Fort, Sir Henry Loch's private secretary, if he could take me round to the Parliament House and give me a sight of the great man. In a day or two he let me know that Rhodes would be there at a certain hour, when he would come with me. As we walked up to the Parliament House together, I saw a large figure of a man, with a rather rolling gait, in not over-clean gray flannels, with a somewhat battered straw hat on his head, his hands thrust deep into his trouser pockets and his jacket pulled to his waist, showing an enormous breadth of beam, wandering meditatively upon the road before us. Fort said to me: 'There you are! That's Rhodes.'

I gazed on the curious back, deeply impressed with an astonishment that was only to grow as I got to know him better. On my return home I found a very pleasant note from him asking me to dine in a day or two. We were only men at the dinner and the dining

room could not have held more than eight or ten at the most. Who were there I cannot exactly remember, except C. D. Rudd, who was Rhodes's principal partner in the Rand.

It was Rhodes himself, naturally, who was the star performer, and him I shall never forget. His large, stocky figure, surmounted by the head of a Roman Emperor, which was yet extremely British on account of the naturally ruddy complexion deepened by years of African sun to a rich brick color, in which were set large, vague, dreamy gray eyes, surmounted by a high forehead with a shock of reddish hair, made him one of the most extraordinary figures I have ever seen. He at once produced on me the impression that Bismarck did when I came up to him in the station in Berlin on the day of his departure: that of a Colossus, who was different to and above other men, and could hardly be judged by the same standards.

The dinner was simple enough, although the wine, especially the champagne, was noteworthy for its excellence; that was the one luxury which Rhodes allowed himself. After dinner, when we were all sitting together smoking, he turned upon me and asked me what the Foreign Office was thinking about affairs in Mashonaland, especially with regard to the relations with Portugal.

This was, of course, an effort on his part to draw me out as to what the feeling was at the Foreign Office about his efforts to acquire, in some way or other, the harbor of Beira, at the mouth of the Pungwe River, in Portuguese East Africa, which was the natural outlet of Mashonaland to the sea. Apart from the division of northern East Africa with Germany, this was, at the time, perhaps the most acute question in foreign politics which the scramble for Africa had raised.

I said I was extremely sorry, but since I had left the Foreign Office I had heard nothing on the subject, and I felt sure that he could give me much more information than I could give him.

Upon which his dreamy eyes lit up with a sort of malicious fun, and he said:—

‘Oh, yes, I’ll tell you all that is going on in London. Several [the Portuguese Minister, who was a great favorite with the smart set in London at that time] is going round to dine with the Duchess of this and the Countess of that, and after dinner he gets excited, ruffles his hair [Several was as bald as a coot, but Rhodes ruffled his own hair], then falls on his knees [Rhodes fell on his knees before his nearest guest], and, with hands clasped, begs them to go at once to the Prince of Wales and save him and Portugal from the clutches of that archfiend, Rhodes.’

The whole of this was done with such a sense of mimicry and comedy—besides also having a considerable basis of truth in it—that we were all convulsed. I never think of Rhodes without that scene’s coming to my mind. It is the kind of thing that I have never come across in any biography of him, and it threw a ray upon the humorous side of his character which was a real revelation to me.

* * *

The next time Rhodes invited me to dine we were almost alone and he gave me a sketch of his ideas as to the lines along which the Empire should develop. A tremendous believer in the force of British character and its fundamental love of liberty, he was strongly opposed to anything like centralization. The interference of Downing Street in the affairs of the great Colonies, as South Africa, Canada, Australia, and New Zealand then were, was anathema to him. He was

very decided in declaring that the time had come for these countries, which would before long be called upon to play a considerable part in world affairs, to run their own business, rightly or wrongly, without being told how to do it by Governments in London that completely changed their tone and their policy every five years in accordance with the views of the party which elected them. This, he declared, would possibly lead to the breakup of the Empire before very long. It was a source of continual vexation and it must be removed.

He then sketched out what he believed to be the only plan by which the British Empire could continue to exist, and this—which I look back upon as having been a vision of the future of an extraordinarily farsighted prophet in political affairs—was almost precisely what has actually taken place. He demanded the complete internal autonomy of the countries now known as the Dominions. In fact, the Empire would become a loose Confederation of English-speaking States, having certain common interests and common objects: peace, law and order, economic development; the further civilizing of backward parts of the world, which he, with his intense belief in British efficiency, held should gradually, in the main, come into this British constellation of States; and, for the rest, friendship with the outside world generally, provided—and this was the snag—that the outside world did not interfere too much with his ideas. That was the trouble, in his opinion, with Portugal at that time: an inefficient and corrupt country, according to him, which, while others were asleep, had acquired vast portions of the surface of the world that it was entirely unable properly to develop.

I cannot, of course, remember the words he used, but this was the general impression left on my mind, and it

came nearer to prophecy on a grand scale than anything else I can ever recollect to have heard. Nearly everything he foresaw has come true. He filled me with enthusiasm for his views, which included, among other things, a preferential tariff among the component parts of the Empire. This also I have lived to see.

When he spoke about these things it was almost as an inspired prophet, and he lost that hard, somewhat material look which was generally predominant in his face. His eyes always had the dreamy expression of a visionary, but when he spoke of the future of the Empire his whole face seemed to change. It is no wonder that he carried me by storm in those days and convinced me of the practical value of most of his ideas, to which I have adhered ever since.

There was one of his pet themes, however, which I have never been able to digest. That was the absurd Nietzschean doctrine of the superiority of the Nordic races. I had already, in those days, become convinced that the Latins and Celts possessed certain qualities of the mind and of the spirit which were largely lacking in the British and in the German Nordic make-up. All races, indeed, appeared to me complementary to the others, and I have grown with years only more firmly fixed in the belief that there is nothing more fatuous in international affairs than to believe in the unquestioned superiority of one's own people and the inferiority of others.

* * *

The Liberals had returned to power in 1892 with a small majority, including the Irish, pledged to bring in a Home Rule Bill. Gladstone was Prime Minister; Rosebery, Foreign Secretary; and Harcourt, Chancellor of the Exchequer. Between the two last there was no love lost. Rosebery was, in

Harcourt's eyes, exuding at every pore the venom of Imperialism, while Harcourt, in Rosebery's opinion, was the Champion Little Englander. Neither took any trouble to hide his views from his colleagues or from the public, and this did not make for harmony in poor Mr. Gladstone's last Cabinet.

He, in fact, old and worn with the strife of contending factions, resigned in March 1893, when the Queen, to the undying vexation of Harcourt and the more radical faction, sent for Rosebery to form the new Cabinet and continue Gladstone's policy in accordance with the majority in the House. Harcourt remained Chancellor of the Exchequer, and Lord Kimberley, a most kindly, moderate, patient, and sensible Liberal, became Minister for Foreign Affairs.

During Lord Rosebery's brief reign I had another short innings at the Foreign Office. Lord Kimberley's second son, Armine Wodehouse, was a friend of mine and, since his father took him on as private secretary, he asked me to act as unpaid assistant private secretary, which I was delighted to do. Henry Foley of the Foreign Office was *précis* writer, and we all shared the large room next to that of the Secretary of State, known as the private secretary's room. We made an excellent *ménage à trois*.

Lord Kimberley acted as buffer between the two contending factions in the Cabinet, and what made the greatest impression on me at that time was the ceaseless wrangling over all questions of foreign politics between the Prime Minister and Sir William Harcourt, who both seemed to think that it was up to them to conduct the foreign policy of the country and that poor Lord Kimberley was no more than a kind of sausage machine to turn out of their conflicting ideas an agreeable food for the British public. I admired

Lord Kimberley's tactful and patient handling of these two fiery antagonists in the Ministry.

On one occasion, when I was working alone in the room, Lord Rosebery suddenly appeared. He was agitated and not in the best of humors. He asked where Lord Kimberley was, where Armine Wodehouse was, where Henry Foley was, when they would be back, and so forth, and said he would wait for the Secretary of State. He began pacing up and down the room with his hands behind his back, looking like Napoleon on the way to St. Helena. He was not lacking in a certain histrionic power on these occasions and I could not help wondering if he did not feel that he was on his way to his own St. Helena, and was playing up to the situation. I remained standing, out of respect to the Prime Minister, who had not sat down. He told me I might sit down and go on with my work, which I tried to do, but found myself too fascinated by that pacing figure to think of anything else. He never spoke and the silence could have been cut with a knife. I prayed almost audibly for Lord Kimberley's return. At last he came back and Lord Rosebery without a word passed into his room.

That was the only tête-à-tête I was ever privileged to have with Lord Rosebery. His Government fell shortly after. I saw him again occasionally at large parties, when he was resplendent in his blue ribbon and diamond garter, but he never paid the slightest attention to me. This I attributed at the time to his dislike of men with beards, — especially, I think, reddish, back-woodsmen beards like mine, — for he was always extraordinarily carefully groomed himself. I imagine, however, that he never truly realized my existence, and, if I was but a pebble by the road to him, he remained — to my chagrin, for I should have liked to

know him better — not even a Primrose by the river's brim to me.

I hope I am not doing him an injustice, but Lord Rosebery has ever seemed to me like a highly polished eighteenth-century snuffbox of onyx and lapis lazuli set with cunningly wrought gold and diamonds, filled with perfumed snuff, which would be opened on special occasions and produce richly scented sneezes in the shape of epigrams. He had certainly the highly polished, light-reflecting surface which the eighteenth century loved, but which Sir Edwin Lutyens rightly warns us against as a form of decoration. Of him perhaps more than of anyone it may be said, 'Vanity of vanities, all is vanity.' Which of us in this world hath his heart's desire, and which of us, having it, is therewith content? He achieved his three ambitions: was Prime Minister, married a great heiress, and won the Derby — and was he therewith content?

* * *

I was glad to be in the Foreign Office at that time because Edward Grey was Parliamentary Under-Secretary of State, a very responsible position when the Secretary of State was in the House of Lords. In this way I got to know him better than before, and he would sometimes talk shop to me even outside the walls of the Foreign Office. My respect and admiration for his character and his restrained and balanced outlook on world affairs grew continually. I met him frequently shooting and fishing in the house of our mutual friend, Vernon Watney. He reminded me of the ideal characters of old Rome, such as Cincinnatus, who after serving his country in the highest degree only desired to return to his farm and live the simple life of a countryman. No one I have ever met in political life has had quite the same attraction for me, though I cannot say I ever knew

him really intimately — very few had that privilege.

If Lord Rosebery appeared to my mind's eye in the guise of a highly polished eighteenth-century snuffbox, Edward Grey always took the form of a granite column, smooth, but not polished so as to reflect the things about him, for he was the most genuine man I ever met. I cannot imagine him ever imitating anyone. Though he was a granite column, there was hidden within it a vein of gold; and though it may seem incompatible with granite, he had a keen sense of humor. Perhaps I am prejudiced, but I infinitely prefer his writing to Lord Rosebery's polished style, and I believe that Grey's *Charm of Birds* will outlive thousands of more learned and more profound books, just as Izaak Walton's *Compleat Angler* is probably to-day more read than Hobbes's *Leviathan* or Burton's *Anatomy of Melancholy*. *The Charm of Birds* is a perfect piece of English prose and deals in a true English spirit with a subject that appeals to most English hearts.

* * *

Another man with whom the months I spent at the Foreign Office brought me into closer contact than ever before was my cousin Auberon Herbert.

Auberon was a most unusual person. Very gifted though he was, and with a special charm coming perhaps from the old-world courtesy peculiar to all that branch of the Herberts, his ideas were yet so revolutionary and subversive and his habits so unconventional that he had dropped almost entirely out of the society of his own class. He was indeed so pronounced an individualist as to be an anarchist. He was, as a matter of course, a violent opponent of government control or

interference of any kind. Having been a very smart cavalry officer in his youth, he had become a fanatical pacifist, and had on one occasion to fly before an irate patriotic mob in Hyde Park whom he had attempted to convert too rapidly to his ideas. Indeed, he only saved himself by climbing the high railings that surround the park, leaving, I was told, a large part of his trousers on the spikes, to the huge delight of his pursuers.

He had a mania for woolen clothing and spent a great part of the day in pulling on or stripping off knitted gray woolen jerseys. He always traveled with his own Jaeger blankets and would sleep in nothing else; he also had a passion for airing them. So much was this the case that once, being on my way through Athens, I looked up at the upper stories of one of the principal hotels, and seeing the balcony of one room hung, not with tapestries, as in the Renaissance for a *festa*, but with large Jaeger blankets, I went in, asked for Auberon Herbert, and was immediately taken up to his room.

I used to go from London in the summer and spend week-ends with him occasionally at his quaint house in the New Forest. Auberon — then about fifty, I suppose — suddenly thought he would learn to play the fiddle. One moonlight night I heard the most unearthly sounds from the garden and, looking out, saw Auberon, wrapped in woolen sweaters and Jaeger rugs, sitting on a chair in an open space that passed for a lawn, sawing away on his fiddle with astonishing energy. It was a delightful sight, but the sounds were more like the moans and shrieks of a tortured animal than anything before produced from a musical instrument.

How memories crowd upon me as I write!

RAILROADING MOVES AHEAD

BY RALPH BUDD

YEAR after year since the World War when the annual reports of railways have come out, people have read (if they ever do read annual reports) that the passenger revenue had declined to a new low and that some reduction had been made in the passenger-train mileage. It is notable that these declines were well under way before the depression days of 1930, and a singular thing is that the loss of a hundred million dollars a year in passenger revenue did not then appear to cause much concern. I suppose the main reason was that freight traffic was showing substantial increase, and widespread realization of the seriousness of the loss in passenger business came rather suddenly when freight traffic also collapsed. At any rate, since then the doctors have been prescribing drastically. Lower fares, more frequent schedules, faster and better trains, free meals, free taxicabs, more and better porter service without tips, better depots, all have been recommended, mostly, of course, by people without experience in railroading or any responsibility for results. Occasionally the comforting word has been passed out that 'passenger business did not pay anyway, so it is just as well for the railways that they lost it.'

Then lightweight, high-speed, streamlined Diesel-powered trains came along, and the lust for the spectacle of combat on a grand scale has been gratified by conjuring up a fierce and clamorous battle between this ultra-

modern type train and the good old steam engine, which, it is said, 'can after all run faster than any of them.' Indeed, the steam locomotive can — it can make almost any speed desired. I am reminded that in 1893 the famous '999' pulled the Empire State Express at $112\frac{1}{2}$ miles per hour. There also comes to mind a curious pamphlet brought out in 1899 by the passenger department of the Burlington Railroad entitled *Two Monsters* and describing two passenger locomotives which were 'the largest ever built for passenger service.' Their driving wheels were $84\frac{1}{2}$ inches in diameter. In reality they were quite attractive and deserved a better name than monsters. There are records of their attaining speeds of about one hundred miles per hour. They were our first Atlantic-type locomotives, and after them has come a long line of Atlantics, which, with various changes in details and accessories, still are popular for small high-speed passenger trains. But I believe it is not the serious idea of anyone, and certainly it is not my idea, that the main point of the present-day railway passenger development is a contest between the speed capabilities of steam and Diesel trains.

I. THE BACKGROUND

Everyone who can remember things that happened more than twenty years ago knows that all long land journeys

were thought of then in terms of railway travel if it was practicable to reach a railroad. Still earlier, in the so-called backwoods sections, life was confined pretty generally to the communities and the families were isolated. When a new railroad line was opened, people — many of them grown men and women — drove in to town from all the country around to see their first train. I remember that thirty years ago in Missouri on such an occasion the locomotive engineer, who was quite a wag, looked down at the curious crowd that was pressing close up alongside the track and cried, 'Look out! I'm gonna turn her around!' — then guffawed as the people fell back tumbling over one another.

In 1932, when the line from Childress to Pampa, Texas, was opened, two excursion trains made the trip and they carried scores of smartly dressed boys and girls up to fifteen or sixteen years of age who never before had ridden on a railroad. These children were not seeing their first train, however. They probably had passed plenty of trains while motoring on the pavements alongside the right of way. Trains were too slow for them except on some such special occasion as this celebration. In all parts of the country, no doubt, there are countless thousands of young people who, like these, never have ridden on a train. When they think of going anywhere they think of an automobile, and this is often true even for a journey across the continent.

In the short space of ten years almost our entire population has ceased to be railroad-minded about traveling. It does n't take a generation for such a change; all the time needed is enough to build good highways and to produce fast automobiles. Expressed in figures, the high point was reached in 1920, and since then the decline has been exceedingly rapid. From an average of 440 miles of travel in a railway train by

each person in the United States in 1920, the average fell as follows: —

345 in 1921	264 in 1928
323 " 1922	256 " 1929
341 " 1923	218 " 1930
319 " 1924	176 " 1931
313 " 1925	136 " 1932
305 " 1926	130 " 1933
285 " 1927	146 " 1934

Billion-Dollar Loss

What this has meant in dollars of railway earnings is that the revenue from passenger business on the Class I roads dropped from \$1,289,000,000 in 1920 to \$329,000,000 in 1933. A loss of nearly a billion dollars of business per year is startling even in these days of dizzy reckoning. This loss of revenue is particularly serious because passenger service could not readily be reduced in a measure comparable to the decline in railway travel. The reasons are sufficient and well known. There are many cases where enough patronage may remain to make a train necessary, although the number of cars on it may be reduced greatly and the number of passengers may be only a small fraction of the former number. In other cases the business remaining would not justify running a train except for what railway men call the 'head-end' business (forward of the passengers): that is to say, the mail and express must be handled as a convenience and necessity for the communities along the line whether or not anyone rides the trains. Passenger train miles — hence the cost of passenger service — have continued at a much higher level relatively than the number of passengers or the revenue therefrom.

Going into the matter a little more, we find that it is in trips of one hundred miles or less that the decline has been most severe. This may be illustrated by the fact that the average length of trips made by all except commutation passengers on the Chicago, Burlington and Quincy Railroad in 1920 was 69

miles, while in 1933 it was 156 miles. The railways lost about three fourths of all their travel, but they lost about five sixths of their short-haul local travel.

It has been quite a prevalent idea that the railways never made much out of their passenger business, and therefore it was not a serious thing for them to lose it. Paradoxical as it may sound, the first part of this statement is measurably true, but the second part is wholly erroneous. It should be possible to explain this seeming contradiction and the point is very important.

When the railways were handling a volume of freight and passenger business which approximated their capacity, it is true that the cost of running the passenger trains, including the cost of maintaining the motive power and equipment and a fair proportion of track upkeep, taxes, and overhead expenses, did absorb about all of the passenger revenues. The profit on most railroads was made in handling freight. If, therefore, a railroad could be used to its capacity for handling freight trains only, without any interference from passenger trains, it would be more profitable than handling both freight and passenger trains. But on almost all railroads passenger trains are necessary and must be operated. It has cost almost as much to operate the trains with only a few passengers as it did with many — that is, when we include the fair proportion of overhead expenses and cost of maintaining road-bed, tracks, and other facilities. These expenses are necessary for the lesser number of trains carrying a lesser number of people to almost as great an extent as they were for the larger passenger travel. Dining cars, for example, are operated at a loss, but it does not follow that there would be less loss if fewer people would eat in the dining cars so long as the patronage necessitates the operation of the dining cars at all.

The loss of passengers, where the roads have been left with the necessity of still running passenger trains, has reduced the net income by almost the whole amount that it has reduced the revenue. So it is true that, while the passenger business was never very profitable on most roads, losing the passenger business was disastrous, because expenses could not be reduced correspondingly.

Travel Attractions

Nothing is more thoughtless or unjust than to say that railway officers have not been disturbed by the loss of their passenger business or have not given attention to the question of what to do about it. Among other things, they have:—

Reduced fares to the point where they now average less per mile than in 1916.

Provided de luxe equipment having appointments comparable with those of the best hotels and clubs.

Inaugurated air conditioning on practically all of the principal trains.

Shortened the time schedules between many important points.

Consolidated trains, thus reducing train miles by stopping through trains at more stations and eliminating some local trains.

Taken off trains where the patronage no longer justified running them, although in doing so they have realized that reducing service accelerates the decline in patronage.

Substituted gas-electric units for steam trains where it has been practicable to do so.

Provided bus service on the highways where the business could be handled by that means.

These things obviously were for the purpose of holding traffic, or retrieving some that was lost, or reducing expenses. In spite of these measures, people have continued to desert the railroad trains and travel on the highways, especially for the shorter journeys. Of course there have been good reasons for doing so and this is no com-

plaint. The reason has been principally the very great advantages which automobiles, unhampered by fixed schedules, running on splendid highways, have offered in comparison with conventional trains, and we may as well admit that to a considerable extent present-day travel by automobile is so alluring that, for the most part, people will continue to go that way. With the overcrowding of main highways and the appalling increase in motor-car accidents, however, the factor of safety plus new rail-travel conveniences may bring back to the rails a percentage of those who have been riding on rubber.

If anyone thinks that it has not taken courage for the railroads in their present financial straits to raise nearly \$40,000,000 for the air conditioning of equipment — this being the sum that the railways and the Pullman Company will have expended for that class of improvement to passenger cars by July 1 of this year — and a good many millions more for the purchase of deluxe cars and modern passenger locomotives, in the face of such a decline in passenger traffic as they have been experiencing, I wonder if that person has been confronted with the necessity of making decisions involving matters of such magnitude or under such circumstances. Or if anyone thinks that it was an easy conclusion to experiment in the West by reducing fares from 3.6 cents to as low as 1.8 cents a mile, and doing away with the surcharge on Pullman tickets, let him reckon the consequences if the traveling public should not respond favorably and the Western railroads should lose a substantial part of their passenger revenue, which still amounts to \$95,000,000 a year.

As a matter of fact, the wisdom of these fare reductions from the standpoint of net income still is in doubt, particularly after paying the cost of handling the increased business which

resulted from the lower fares when contrasted with the showing in the Eastern district where fares were reduced but little. Many, many factors enter into this problem, such as the different character of the country served, the relative effectiveness of highway competition, the practicability of attracting sufficiently more travel by lower rates, the necessity of adding trains, and so forth. This whole question is now the subject of an investigation by the Interstate Commerce Commission.

Glorifying the Gas-Electric Car

We know by experience that gas-electric cars which have been put in service to replace steam trains have been the most economical units that could be operated. There are about six hundred of them in service on the railways, and on some roads they account for a very substantial part of the total passenger-train miles. The cost of operating one of them is well established and is known to be less than half the cost of operating a small steam train.

The earlier examples were not very comfortable, and because of their bouncing ways some of the first gas-electric cars have been dubbed variously 'the puddle jumper,' 'the wooden shoe,' 'the galloping goose,' 'the merry widow,' 'the doodlebug,' and so forth. They have been much improved and often handle one or more regular coaches as trailers. While serving an exceedingly useful function for some main-line local service and on secondary and branch lines, even in their present form they do not possess the public appeal which is so necessary. These trains, however, stimulated the idea which in 1934 brought about some startling developments. The simultaneous availability of Diesel engines instead of gasoline engines for power and of very strong and very lightweight

structural material inspired the thought of transforming the essential features of the gas-electric car into a full-sized train by equipping the forward end with a Diesel electric power plant and expanding the trailing-car capacity by the use of lightweight construction. At the same time the concept was to build into such a train every conceivable comfort and luxury. Also, since speed was to be a feature of the new trains, the streamline idea was embodied in the design.

From this background there have emerged some streamlined trains which are complete innovations in railway transportation. They have a twofold purpose. First, to attract an increased traffic through achieving as nearly as possible the public's ideals of speed, safety, convenience, and comfort; and, second, to operate at low cost. To-day at least a dozen streamline trains have been built or are under construction. I believe the Gulf, Mobile and Northern Railroad will have the distinction of being the first to motorize its passenger service completely when this month it places in service two semi-lightweight trains between Jackson, Tennessee, and New Orleans.

II. THE PRESENT

The only streamline train in regular service in 1934 and the only Diesel streamline for which data of actual performance are available is that known as the Burlington Zephyr. It was especially planned for a day run through the Missouri River Valley between Kansas City, St. Joseph, Omaha, and Lincoln. Since November 11, 1934, it has made the round trip of 500 miles daily. That is long-settled country for the West, and the counties traversed have a total population of 1,200,000. Until the last decade the Burlington carried throngs of people on the several trains it operated there. The loss of traffic to

the highways probably is as typical on that route as any that could be found, but even now a daylight local must be operated to accommodate the communities with express, baggage, and passenger service, although prior to last November the passenger travel had dwindled toward the vanishing point. The 'head-end' business on each of the local steam trains which were in operation there in recent years required 76 lineal feet of inside car space, and the average number of passengers was about 25.

The Zephyr is a three-unit articulated train of stainless steel, having 76 lineal feet of car space for mail, express, and baggage, seats for 72 passengers, and an electric grill for preparing and serving food at tables which are set up at the regular seats. Three types of accommodations are provided. First, a smoking compartment with leather seats, tan floor covering and walls blending into warm gray ceiling; second, regular passenger compartment with green carpet, upholstery, and walls; and third, an observation lounge with movable chairs, in a blue color scheme. All passenger sections are air conditioned and equipped with radio. The interior of the train is modern in treatment, relying on utility and simplicity — a straightforward use of the most suitable materials. Stainless-steel window frames, door frames, and other exposed structural members are features of the inside finish. The effect is not unlike that achieved in some of the latest automobiles, and as styles change it will be the plan to keep the interior freshly decorated and furnished according to the latest mode.

The exterior is permanent, since it is made of stainless steel. It is left unpainted because its silvery surface not only is more beautiful so, but also expresses the motif of speed, and is consistent with the desire for economical maintenance. Whatever changes

may come in the exterior appearance of trains, the Zephyr always will be pleasing to the eye because it conforms with sound principles in design, and its low smooth body, with rounded front, tapered tail, and shielded trucks, proclaims its suitability for effortless speed. It is clean as a polished knife blade of the same material. As Charles Francis Adams said of the George Washington Bridge, it is strictly modern in every particular, yet no one would think of applying to it the slippery epithet 'modernistic.'

The architect, Paul P. Cret, of Philadelphia, is chiefly responsible for the exterior and interior treatment, although the outlines of the contour were determined from wind-tunnel tests made at the Massachusetts Institute of Technology. At ordinary speeds and up to about fifty miles an hour, streamlining a railway train accomplishes comparatively little in the way of economy in fuel or gain in speed, but for higher speeds the benefits increase very rapidly, and at one hundred miles an hour the gain in speed due to streamlining is more than 30 per cent. The principal advantage, however, comes from the light weight, since on a railway train the full advantage of streamlining is obtained only when heading directly into the wind.

Experience always is the most dependable guide, especially when that experience extends over a considerable period and is of typical character. Experience with the Burlington Zephyr necessarily is short, but it has taken the place of conventional trains which are quite like those that perform a substantial part of the total passenger-train mileage of the country, and since this is all the actual service experience of a Diesel-powered streamline train there is available, it is very important. The numerous tests and actual records have verified the calculations to a remarkable extent, but show greater fuel

economy than was promised. The keynote of the Zephyr idea is not that it will be operated at excessive speed, but quite the contrary. Its acceleration and deceleration are so rapid that a high average speed may be maintained with a maximum speed not greatly above that average. In other words, the Zephyr is designed to go places quickly with uniform but not excessively fast running between stops.

The Zephyr at Work

The regular schedule was inaugurated on November 11, 1934. The run from Lincoln to Omaha, 55 miles, is made in 55 minutes, and from Omaha to Kansas City, 195 miles, in 3 hours and 55 minutes, or at 50 miles an hour, including ten station stops.

The on-time performance has been almost perfect, notwithstanding the increased traffic, which has required longer stops. The two sets of steam-train equipment which the Zephyr replaced between Kansas City and Omaha had a weight of 809,000 pounds each; the one which it replaced between Omaha and Lincoln weighed 627,800 pounds. The total weight of the Zephyr ready for service is 218,847.

The cost of operating the steam trains averaged approximately 65 cents per mile and the cost of operating the Zephyr has been about 30 cents per mile. Over a long period it is estimated that the cost of operating the Zephyr may run as high as 34 cents per mile. In the above comparison the steam-train schedule was much the slower, and its cost would be increased if the faster schedule were undertaken. The maximum speed of the Zephyr in service is 85 miles an hour. At that speed it rides very comfortably and quietly, and is free from jerks and jolts in starting and stopping, although the acceleration and deceleration are accomplished very quickly, a speed of 60 miles an hour be-

ing reached in one minute and twenty-four seconds from a standing start.

The patronage has been so favorable that the accommodations have been taxed beyond their capacity on parts of the trip practically every day, and a fourth car, which has a capacity of 40 passengers, is being added, bringing the total up to 112. An attempt has been made by oral inquiry and by use of a questionnaire to ascertain the reasons why people have been riding the Zephyr. The information indicates that curiosity riders have accounted for about 12 per cent of the increase in travel, while about 32 per cent of the increase is accounted for by those who would have used the highway or airway except for the fast rail service. Passenger revenue has more than doubled.

We confidently expected that the performance of the train would be about as experience thus far has indicated. Our uncertainty was as to the attitude of the traveling public; we frankly regarded the undertaking as an experiment with the travel habits of people to ascertain whether it would be practicable to attract any large number if we afforded all the desirable features possible on a day train. The public response has far exceeded expectations.

There is a question in the minds of some as to the hazards at grade crossings. The power plant is carried over the front truck of a lightweight train, and in the case of the Zephyr there is more weight on its front truck than on the forward truck of our largest passenger locomotive. Any collision with even the smallest automobile may result in derailment of the heaviest train because some small broken part may raise the wheels off the rails. Instances of such accidents are only too numerous. The front of the Zephyr is shaped in such a way as to lift and deflect obstructions from the track rather than to roll them under the train. On several occasions it has struck animals on the track and it

has had four encounters with highway vehicles at grade crossings, two with trucks and two with automobiles. In each case it cleared the track without derailment or damage — to the Zephyr. In this respect its batting average is 1000.

Comfortable riding at high speeds depends, of course, upon good track. On a curve the outer rail must be super-elevated according to the radius of the curve and the speed of the train. The centre of gravity of the Zephyr is nineteen inches lower than that of the ordinary train, but equally important or more so is the fact that there is no overhang except at the rear end, since a single truck carries the ends of two adjacent cars, there being only four trucks (sixteen wheels) under the three-car train. The cars are joined by a hinge or swivel connection exactly over the centre of the truck. This 'articulated' construction accounts for the entire absence of independent motion of the cars. It also ensures smooth starting and stopping, for the entire train moves as a unit.

One Thousand Miles without Stopping

On the morning of May 26, 1934, the Zephyr left Denver at four minutes after five o'clock, Mountain Time, and arrived at Chicago that evening at nine minutes after seven, Central Standard Time, having covered the 1015 miles in 13 hours and 5 minutes, at an average speed of 77.6 miles an hour without making a single stop. It proceeded through the centre of Chicago to the Lake Front, a total of 1018 miles without stopping. This is twice the non-stop distance ever covered by train before or since, and was undertaken as a demonstration of ability to sustain continuous high speed over a long period. The importance of this performance has been minimized by reports that all grade crossings were

guarded and all switches were spiked. The latter statement is wholly in error; as for the former, the public interest in the run was so intense that, in order to avoid accidents to spectators and delays to the train, arrangements were made with local authorities to keep the crowds back from road crossings. That was a wise precaution, as it is estimated that more than half a million people saw the train at points along the route or at the terminals. They press very close to the track unless someone in authority explains the danger, as well as the better vantage point some distance back.

Because Denver is a mile above the sea, the trip has been compared with one down a toboggan slide. The grade descends to the Missouri River crossing at Plattsmouth, and is undulating across Iowa and Illinois. The 537 miles from Denver to Plattsmouth have a descent of 4164 feet. The slope is approximately that which a level board ten feet long would have if one end of it were raised one sixth of an inch. The grade actually accounts for a saving of about fifteen minutes compared with the time required westward, from Chicago to Denver. But in fairness it should be stated that all of the very high speed records of streamline trains have been downhill and the fastest runs have been on the steepest grades.

Minor Troubles

Since this is a statement of record it may be well to mention a delay of an hour in leaving Denver, and the other incidents which constitute our trouble list. A broken bearing in one of the motors was discovered only a few hours before the scheduled departure from Denver and was replaced by one which was borrowed from the Union Pacific. There was an unimportant repercussion from this failure on June 13, when it was found that a gear had been in-

securely attached. Neither this nor the bearing failure had any relation to the new type of power plant. On July 3 a minor defect in the method of plugging the core holes in the cylinders was found, and that detail was changed both on the Zephyr engine and on those of later construction. On January 15, 1935, a cylinder liner cracked, owing to a defect in casting, and allowed water to enter, causing the engine to stop. The train had nearly completed its day's run and was towed to Lincoln by a steam engine. A new cylinder liner was placed and the regular run was made the following day and every day since. Widespread publicity was given to this incident because it was news for the Zephyr, which had displaced two steam-train schedules, to be assisted by a steam locomotive. The break was no more significant than failures which happen to parts of steam locomotives.

Considering that this is the first Diesel engine of its kind ever installed in a passenger train in this country, its performance has been truly remarkable. The Zephyr having now covered approximately 100,000 miles, including 30,000 during its exhibition tour through 222 cities from coast to coast, it may be said with confidence that there are no inherent defects in the power plant. No trouble of any kind has been experienced with the car structure. It has proved to be sturdy and strong and promises the maximum of permanency with the minimum of maintenance.

III. THE FUTURE

At the beginning of the century there were isolated instances where gasoline engines were being tried for pumping water for railroad use, and there were small inspection cars which were propelled by gasoline engines — that is, they were so propelled when the engines ran. I can well remember pushing

these early types of inspection cars over miles of railroad track, always hoping that the engine would start running, which in truth it did every now and then. Until about 1908, we were afraid to rely on gasoline engines for such important work as pumping water as a general proposition, and even later at important water stations a steam plant was kept in reserve.

It was about this time that I first saw a gasoline rail car. It was known as the McKeen car and was shown by the Union Pacific, having been sponsored by the late Edward H. Harriman. It had a very distinctive appearance because of its color, its rounded corners, bulging sides, and windows the shape of portholes. In railroad colloquy it was 'the potato bug.' This car embodied many of the ideas and features which are built into the present-day gas-electric cars, which have saved the railways enormous sums of money in recent years, to say nothing of the promise for the future. It seems singular that the development of these cars did not come along much more rapidly from that beginning. For several years no substantial progress was made towards introducing them. Of course the need was not so pressing as it became later, and the problem of applying the power was a difficult one because of the relatively great weight of a rail car compared with an automobile. Using electric motors for traction and the engines merely as portable power plants was the solution, and the gasoline car became the gas-electric.

The Diesel engine was perfected and for years has been probably the most efficient of all internal-combustion power units. It does not have either a carburetor or an electric ignition system, and its outstanding advantages are its dependability and its use of low-grade fuel instead of gasoline. The high compression which develops, by molecular friction, sufficient heat to

ignite the fuel when injected into the combustion chamber has made necessary very heavy and bulky construction. For that reason its use has been confined almost exclusively to stationary plants, marine engines, and railroad switching locomotives. The weight per horsepower in such installations has ranged from 65 to 200 pounds or more. Consequently Diesel engines have been relatively expensive in first cost.

It was not until 1933 that manufacturers were able to offer the railroads Diesel engines which were suitable for lightweight passenger trains of the type we are considering. That was because up to then there were no metals sufficiently strong, reliable, and workable from which to produce power plants weighing only about twenty pounds per horsepower. Welded alloys — Cromansil (chromium-manganese-silicon), for example — solved this problem in the case of the Zephyr. The entire front-end car frame, which also is the engine bed, is made of one piece, giving unprecedented strength and sturdiness at the point where most needed.

Simultaneously it was found that stainless steel could be welded successfully by an electric process that would not destroy its two vital and outstanding qualities, resistance to corrosion and very great strength. 'Shotweld' is the name for this method of fabrication and it is not too much to say that it has broadened the use of stainless steel from the restricted limits of cutlery, dental and surgical tools, and so forth, to that of a superlative structural material. In order to build a truly lightweight structure without sacrifice of strength or safety it is necessary that the materials used shall be so placed in the design and so fabricated as to utilize their full capabilities, and to do this it is imperative that they shall remain permanently as they were

when new — they must not rust or corrode.

Thus it was only recently that there were made available the right internal combustion engine for propulsion and also a material which would at once give strength, dependability, and the essential lightness of weight for the cars. All of this is an explanation of the alleged backwardness of railway managements.

Modern Alchemy

To the metallurgists should go a large part of the credit for making possible these new developments, although the fine properties of stainless steel had been known for several years. Now other alloys are being evolved, and in view of what has been done and the manufacturers' awareness of the demand for still further means of reducing the weight of railway equipment and structures, it seems safe to predict that metallurgists will continue to perform what once would have been hailed as miracles. Indeed, the alchemists of old hardly were credited with products which excelled in quality or characteristics many of those metals in the group known as stainless steels. Until the recent past the weight of railway equipment and structures has been increasing steadily in accordance with the requirements of economical operation, which could be met only by mass production — that is, by increasing the car unit, locomotive unit, and consequently the train unit. This has been good railroading, and such success as the railways have had has been based on low-cost transportation, which in turn has been made possible by the ever-increasing size of units.

The dominant spirit of present-day railroading is speed. The changes from the old order have been wrought by various forces and circumstances, some economic, some competitive, and some

perhaps misguided. Highway competition — that is, trucks — has compelled some of the high-speed movement of railroad freight, but not all of it. Competition among the railroads themselves, and some doubt as to the importance of handling very large trains, have brought about a reduction in the tonnage handled, especially where speed has controlled.

As this is being written the arbitrary limitation of train lengths by legislation is being urged in almost every state and in the Congress. This, and the companion measure to increase arbitrarily the number of trainmen, would increase the cost of transportation substantially. Whether the orthodox theory that heavy-tonnage trains are essential to railroad success or the idea that trains should be made smaller shall prevail, there is no doubt about the importance of having the cars as light as possible, because in any case the lighter the cars, the greater the percentage of the gross load behind the locomotive that will be 'pay' load.

Conclusions

Enough is known to warrant some suggestions as to the future. While perhaps only a small percentage of the total travel on the highways can be recaptured by the railways, some of it can be persuaded to go on fast, comfortable, modern trains, particularly for daylight trips up to four hundred or five hundred miles. For such trains the Diesel electric power plants and lightweight articulated cars provide unusually attractive service and show substantial economies. Just how much per pound it is worth to reduce weight of train has not yet been proved, but that is capable of approximate determination by tests. Building the exterior of these fast trains with streamline contours and smoothing the surface are worth while where speeds in excess

of sixty miles an hour predominate, especially since the added cost is only about \$6500 per train. Taking into account headwinds, virtual velocities of well above one hundred miles an hour often are encountered.

The construction of very light passenger trains propelled by Diesel electric power has been made practical only within the last two years. The success of the Burlington Zephyr and similar trains is significant in the possibilities they hold for increasing passenger revenue and reducing passenger-train cost, but more important is what they symbolize in the way of new methods and materials to be used in the construction of the future. New conceptions of the relationship of weight and bulk to strength of materials will affect the design of freight and passenger cars, as well as locomotives.

There is a niche in the passenger service into which the Zephyr-type train will fit, and in that place it will increase revenue and reduce cost of operation. At present the particular niche seems to be in relatively small trains on daylight runs.¹

A return of the railways to extensive purchases for improvement of their plants would mean much in the stimulation of the durable-goods industries. The advantages of lightweight construction in freight and passenger cars and of new motive power, both steam and Diesel, go far to justify undertaking such a programme. The better the

new cars and locomotives are, the more quickly should they be procured and the more of them.

The outstanding factor in transportation to-day is that within the last fifteen years there has been created in this country a giant rival of the railways consisting of 920,000 miles of improved roads, upon which are being operated some 24,000,000 motor vehicles. This transportation system has cost probably thirty-five billions of dollars. It compares with a twenty-five-billion-dollar railway system made up of 246,000 miles of road and about 2,400,000 cars and 54,000 locomotives. It is obvious that the aggregate transportation bill of the country, including interest on investment, has more than doubled, particularly since the average life of a highway vehicle is only about seven years, or about one third that of a railway car. The smaller units which use the highway also have much higher operating costs than the larger units on the railway, whether figured on the ton-mile or passenger-mile basis.

The great convenience and new opportunities for pleasure which the modern highway vehicle affords to the average family of course account for its universal use. It has completely changed the recreational habits of most of the people and has profoundly affected our civilization. The railways too have been affected, and it is but natural that so far as possible they should adopt the features which have been used by their rivals so successfully. This is changing the tempo of railway transportation, and that, perhaps, may be the most important influence of the new lightweight trains. Named for the west wind of spring-time promise, the Zephyr may usher in a revival of business and an era of new progress in railroading.

¹Twin Zephyrs have been built for daylight service on the Burlington between Chicago and the Twin Cities of Saint Paul and Minneapolis. These two trains average 66.3 miles an hour for 431 miles, which is said to be the fastest schedule in the world for that distance. Another will honor Mark Twain's centennial year by going into operation between Saint Louis and Burlington through Hannibal. This train will bear the name of the illustrious writer. — AUTHOR

THE GALLANT CAPTAIN AND THE LITTLE GIRL

BY CAROLYN KELLOGG CUSHING

I

BACK in the year 1861, when the Civil War was demanding its place in our nation's anxious thought, there stood in one of the lovely villages of Berkshire County, in Massachusetts, an old colonial house. It was of the Virginia type; it was built of red brick; its front porch had four heavy columns topped by Ionic capitals, supporting a pediment which carried a large fanlight — all constituting a façade of no mean aspect. On the columns grew in climbing circles woodbines, whose constantly curving trunks measured four inches in their diameter; with their verdant sprouts, like the graceful draping of a curtain, they gave the desired softening effect to the formal lines of the façade of the house.

Up the gently sloping lawn separating this house from the tree-lined village street, one afternoon in the late autumn of the year 1861, came a tall, spare, erect, manly boy of twenty; he bounded up the stone steps, rang the front-door bell. In those days no one 'pushed a button'; a little brass knob at the right of the front door was pulled out, and, being connected by wire with a bell, the jerk occasioned a ringing response which resounded through the house, reminding the maid of a sudden duty — 'to answer the bell.'

When the front door was opened, a voice which made an indelible im-

pression on the Little Girl of the house, as she was trying to satisfy a perhaps justifiable curiosity, asked if Mrs. Kellogg was at home. Mrs. Kellogg, the Little Girl's mother, showed unfeigned pleasure as she entered her parlor — for it was a 'parlor' in those days — and recognized the young Oliver Wendell Holmes, Jr., as her visitor: the son of her friend of many years, Dr. Oliver Wendell Holmes. Inquiries for the boy's father, for his mother, and as to the boy's object in being again in the little village where he, with his parents, had spent seven years in his childhood, brought out the fact that he had just graduated from Harvard, and had now come to Western Massachusetts, in realization of the exigencies of war, to recruit a company for the 20th Massachusetts Regiment. It seemed to the Little Girl that the beauty of his voice, alone, would lure men into enlistment.

The young boy stayed on for many days with the Kelloggs, eliciting much interest from the older daughters of the house, but awakening in the Little Girl, a child of nine years, an affection which continued unquenched, even to the day in March 1931 when the Gallant Captain of 1861 celebrated his ninetieth birthday, having risen from Captain to Colonel, from Colonel to the Chief-Justiceship of the Supreme Bench of Massachusetts, whence he was called

to a Justiceship on the Supreme Bench of the United States. On the memorable evening of that day in March 1931, people the country over honored themselves in honoring him, as they took in the charm of his voice adjusted so perfectly to the demands of the radio, and luxuriated in a transient intimacy with the hero of the hour.

The days of recruiting, in 1861, were busy days; the Gallant Captain was faithful to his military duties, though there were countless Berkshire belles in whom his soul delighted. But he always found time to be with the Little Girl; and when the 20th Massachusetts left for the front the Little Girl was kept in constant touch with him — he wrote to her from Southern camps, he sent his love to her, wrapped up in poems, he had special names for her: 'Buster,' 'Belovedest of Busters,' 'the little Adored One,' 'Small Un,' 'Carrie, carissima.'

Later, after the battle of Antietam had dealt its blow to the young soldier, and his father's 'Hunt after the Captain' had been successful, the village in the Berkshire hills was chosen again as a recruiting ground, but this time to gain physical strength — not soldiers. Again the Kelloggs received the young officer with joy, and the sheltering elms offered a second welcome to him. As before, he found time to be with the Little Girl, driving with her in her phaeton, — one of those to-day outmoded vehicles! — going to see her as part of her school tableaux, and, best of all, giving her his companionship.

As the years went on, and the Civil War ended, the Gallant Captain became the serious lawyer, the effective lecturer, the Chief Justice, whose yearly visits when the Court 'sat' in the growing Berkshire town caused the Little Girl to count eagerly on the month of September, when he could be expected to arrive. Years after, among

her private-box treasures, she found a tiny package marked: 'The last cigar smoked by O. W. H., on the front piazza.'

In one of the poems sent her from the front, he pictures the house where the 'little adored one' lives, describing the tall columns 'with the heavy creepers hugging them all — all, but one.' Strange that a boy whose mind was intent on the possibilities of imminent war service should yet have noticed, and remembered, so insignificant a feature connected with an old house.

But that trait of observation was probably inherited from his father, who, when his attention was called to a clean break in the trunk of one of those same woodbines, recommended that the opposing armies be glued together. They were; and every spring thereafter the fresh shoots testified to the wisdom of Dr. Holmes's prescription. In another letter the Gallant Captain speaks of the Berkshire village he so well knew as placed 'in the amethystine chalice of the hills.' Anyone who has lifted up his eyes unto the hills that encircle the lovely town — as we must now admit it to be — at the time of an autumn sunset can testify to the truth of the young boy's poetic thought.

II

As time went on, letters came to the Little Girl at intervals. In September 1867, this, from Boston: —

MY DARLING CARRIE:

I have just seen your sister. She says you have not forgotten me. A week ago, curiously enough, I was on the point of writing to you, when I thought — what if she has not gotten home from Europe (for I was going to write on luck). What if she has grown up and got to be a young lady whom I can't call my darling any more (she will be it, none the less). What if (this was the most terrible), what if she has for-

gotten me! I don't know what I should have thought or done had this been so. But May says you have n't. I saw this summer one little girl with long hair down over her neck, whom I loved — but, ah me, what is any little girl to me, by the side of my little girl! Many women have I loved; thee only — dost remember, Small Un? Will you write me and say you have not forgotten the wrinkled old party whom once you found room for in your heart!

I missed you in Europe, and sorry I was, for I must have been very near you once or twice. But now here I am at home studying and working — and getting older. Ah, my dear, you don't know how that feels — getting older — seeing your friends, that were, getting other interests, business, marrying — what not — while you are not called — but wait. But I am moralizing like a parson, which I am not, by trade.

Give my love to all, and keep lots for yourself. From your constant adorer
and Ring-tailed Roarer,

O. W. HOLMES, JR.

In November 1867, from Boston: —

BELOVEDEST OF BUSTERS:

With what joy did I find that poor old Oliver is not forgotten. He, I swear it, has stuck to his little adored one closer than he has to his office — as close as he wishes his clients would stick to him — closer still, as close as his heart has stuck within his ribs. What disgusting mention didst thou make of growing older? Shall I not have one little party who won't grow older? With age will come matters more interesting to young women than I am — and short of that, what bridlings and fine airs and graces and proprieties — and I know not what! No, I will not have thee grow older. So you liked Europe? So did I. They have a sweet thing in mountains in Switzerland. Also some considerable towns here and there. The structers in which they lodge their public functionaries are in some cases worthy of note. And they do, undoubtedly, come out strong in spots, on picters, statooary, rewings, field sports and cookery (though of the last, at your tender age, you doubtless took no notice). As to the men — hem — suffice it to say — they are not free-born Yankees.

I am living like an oyster, making shell

for himself. If I work at all, I can do nothing else. So, after a demoralizing summer, I am walking into law and philosophy in a pretty tall fashion (this is a piece of private bragging, and *entre nous*). What gallant young Pittsfieldian sits in my vacant chair? Trust him not, Carry; all men are deceivers except me! It is just striking 111111 six. What were you doing, Miss, at six o'clock on Sunday evening! Not thinking of me as much as I of you, I'll be bound. Alas, it is n't only men who can't be trusted.

Believe me now as ever,

Your adorer,

O. W. HOLMES, JR.

This letter was evidently written under the spell of the 'funny writer' of that day, Josh Billings.

On meeting the mother of the Little Girl one summer day in a later year at Beverly Farms, the Gallant Captain tore a bit of paper from an envelope in his pocket, and, laying it on the tire of one of the big back wheels of the victoria, — so charming, in the 'gay nineties,' — he impromptued the following lines, asking that they be sent in the next letter to the Little Girl: —

Carrie, carissima!

Holmes! Do you miss him, ah!

Holmes is unhappy that you are not here.

But, my dear Buster,

I'm unaccuster-

'med to speak all my sorrow;

I'll drown it in beer.

III

In 1891 a little white-winged messenger, a collection of his short addresses, was sent by Mr. Justice Holmes to some of his friends. The small book was bound in white and gold, and bore on its title-page the words: 'These chance utterances of faith and doubt are printed for a few friends who will care to keep them.' The first of the addresses was delivered on Memorial Day at Keene, New Hampshire, in 1884; the reading of it by the Little Girl, in its exquisite fitness, has served

ever since as a sacred ushering in of Memorial Day. In this address he says:—

To the indifferent inquirer who asks why Memorial Day is still kept up we may answer, It celebrates and solemnly affirms from year to year a national act of enthusiasm and faith. It embodies in the most impressive form our belief that to act with enthusiasm and faith is the condition of acting greatly. To fight out a war, you must believe something and want something with all your might. So must you do to carry anything else to an end worth reaching. More than that, you must be willing to commit yourself to a course, perhaps a long and hard one, without being able to foresee exactly where you will come out. All that is required of you is that you should go somewhither as hard as ever you can. The rest belongs to fate. . . . Desire cannot be imparted by argument, it can be by contagion. Feeling begets feeling, and great feeling begets great feeling. . . .

As surely as this day comes round we are in the presence of the dead. For one hour, twice a year at least—at the regimental dinner, where the ghosts sit at table more numerous than the living; and on this day when we decorate their graves—the dead come back and live with us. I see them now, more than I can number, as once I saw them on this earth. . . . I see a fair-haired lad—a lieutenant—and a captain, sitting by the long mess-table in camp before the regiment left the State, and wondering how many of those who gathered in our tent could hope to see the end of what was then beginning. For neither of them was that destiny reserved. . . . I see another youthful lieutenant as I saw him in the Seven Days, when I looked down the line at Glendale. The advance was beginning, we caught each other's eye and saluted. When next I looked, he was gone. . . . I see one—grandson of a hard rider of the Revolution and bearer of his aristocratic name—who was with us at Fair Oaks, and afterwards for five days and nights in front of the enemy the only sleep that he would take was what he could snatch sitting erect in his uniform and resting his back against a hut. He fell at Gettysburg.

There is one grave and commanding pres-

ence that you will all recognize, for his life has become a part of our common history. Who does not remember the leader of the assault at the mine of Petersburg? The solitary horseman in front of Port Hudson, whom a foeman worthy of him bade his soldiers spare, from love and admiration of such gallant bearing? Who does not still hear the echo of those eloquent lips after the war, teaching reconciliation and peace? I may not do more than allude to his death, fit ending of his life. All that the world has a right to know has been told by a beloved friend in a book wherein friendship has found no need to exaggerate facts that speak for themselves. I knew him, and I may even say I knew him *well*; yet until that book appeared I had not known the governing motive of his soul—I had admired him as a hero—when I read, I learned to revere him as a saint—His strength was not in honor alone, but in religion; and those who do not share his creed must see that it was on the wings of religious faith that he mounted above even valiant deeds, into an empyrean of ideal life.

These words were an embodiment of his admiration for General William Francis Bartlett. In this same address he speaks of 'those whose sex forbade them to offer their lives, but who instead gave their happiness—those lovely, lonely women, around whom the wand of sorrow has traced its excluding circle.'

In another of the addresses, called 'Harvard College in the War,' he speaks of 'that little touch of the superfluous which is necessary.'

IV

The gentle relation between the Gallant Captain and the Little Girl lived on from year to year. A happy marriage came to the Gallant Captain; a happy marriage came to the Little Girl. The gentle relation changed only in that it came to embrace four instead of two.

When the Little Girl was once at the Holmes home, on Eye Street in

Washington, Mrs. Holmes introduced her to some departing visitors as 'my husband's first love.' At another time — a dinner occasion — the host took from his library shelf and placed in the Little Girl's hand a book, bound in red leather, taken from a long row of books similarly bound, which proved to be the manuscript of *Elsie Venner* — in Dr. Holmes's beautifully characteristic writing. Alas, that the holograph has given place to the typewritten draft — if one may 'speak as a fool,' and not as a publisher!

In 1908, the following letter came to the Little Girl from Washington: —

MY DEAR CAROLYN:

I read last night of your mother's death and it brought up many memories — the old familiar, even intimate, acquaintance, the many kindnesses, the intelligent talk, the humor, the atmosphere of affectionate good will.

It brought up you, from little girl to wife, and I thought I might write a line without breaking into sacred places. She has died in the fullness of time and I suppose you were prepared for it — but with such strong personalities one never quite believes, or can believe, that they are gone.

But when she gradually becomes a memory, it will be a great one, one to be proud of, as even I, who saw her only so occasionally, shall remember her as one of the most striking figures of my past.

So did the Gallant Captain's thought follow the experiences of the Little Girl.

In the summer of 1929 the Little Girl stopped at the vine-covered house in Beverly Farms, where with her mother in earlier years she had visited Justice and Mrs. Holmes; her hope of a glimpse of her Gallant Captain was realized. The little interview furnished the high light of that summer for her.

The spirit of the talk was unaltered, the affectionate interchange was still a living experience, and, as the Little Girl rose to leave, the still Gallant Captain, taking her hand, said, 'Well,

good-bye, my child.' Surely the old 'relativity' had not worn itself out: twenty years old, nine years old.

In July 1929, from Beverly Farms: —

MY DEAR CAROLYN:

You brought back the time when you were an adorable child one inch high, and I an objectionable soldier of seven feet. You have outgrown your former stature, but not your adjectivity (do you get me?). It truly delighted me to see you, and I am sorry that I never shall revisit our old surroundings in Pittsfield — dear to me for many reasons — and see you there. But one must be philosophical, when one knows that the show must be pretty nearly over — and I think I am.

Ever your affectionate
old friend,

O. W. HOLMES

From Washington, dated May 31, 1930: —

It is a delight to get your letter, and to realize that you are unchanged from the adorable child of 9. At times I feel finished and often feel sad. A letter like yours revives one's energies. You have the ardor of life, and you pass it on.

Affectionately yours,

O. W. HOLMES

In 1931 the Gallant Captain writes to the Little Girl: —

I am suspicious of industry as a trait that I fear is mine. One of my old sayings is that a man who makes the most of himself does n't make much. Do you know the Wodehouse books? They vary, but few have given me so much life as he. *Leave It to Psmith* (the P is silent) and *Very Good, Jeeves* — every word is golden; such nice original slang — and so funny before you know it! I send you a kiss in memory of a little girl, and am ever

Your affectionate

O. W. HOLMES

In May 1933, the Little Girl was gratified to find that during the few days of a stay in Washington the Gallant Captain could arrange to see her.

With what pleasurable trepidation she ascended to the second story of the familiar house on Eye Street, at the hour appointed! The Gallant Captain greeted her with affection, even with a kiss, beaming with the old smile; he apologized for not rising from his chair.

The talk was more of the present than of the past, but instinct with the old familiar friendly affection. With almost insulting merriment the Little Girl asked: 'Are you improving your mind very heartily these days?' With answering twinkle came the reply: 'No, I'm reading Gibbon again, and renewing my acquaintance with Aristotle.' As she left the big familiar room, its walls lined with bookcases, the Little Girl cast a quick glance at the shelf where she remembered the books in the red binding — the holographs — to have been. They were not there. 'No,' the Gallant Captain explained, 'I've given them to the Library of Congress.'

Up to the Christmas of 1934, the good-wish card came with regularity,

bearing always the distinguished signature, 'O. W. Holmes.' But in addition, what now proves to have been the last Christmas greeting was encased in an envelope addressed by the Gallant Captain himself, and his meticulous attention to the proprieties was indicated by the fact that the Old Bay State on the envelope was written, not as Mass., not even as Mass^{setts} — it was given its full measure: Massachusetts.

One speaks almost with bated breath of a friendship that has glistened, and gleamed, and glowed, for more than seventy years: a friendship that has lived beyond the period of threescore years and ten, but without the association of either 'labor' or 'sorrow.'

The closing words of his ninetieth-birthday address force themselves upon the memory: —

'The work is never done while the power to work remains. And so I end with the line from a Latin poet, who uttered the message more than 1500 years ago: Death plucks my ear and says: "Live — I am coming."'

HARD TIMES AND THE AUTHOR

BY EDWARD WEEKS

I

SHORTLY after I had begun to serve my turn as a publisher's apprentice I suffered the unavoidable experience of falling in love. It soon became clear that, whatever the young lady might think, her elders regarded me as unnecessarily risky. This was not because I was a two-bottle man or fond of stepping out late with the chorus; no, so far as I could tell, their suspicions centred chiefly on the fact that I had committed myself to a bookish career. In an effort to save me before I had sunk too deep in the literary quicksands, one of the elders admonished me in this fashion. 'Don't you think you're making a mistake,' he said, 'to go into publishing? A serious mistake. People don't have time to read books to-day: they're too busy with other things. Motors, dancing, moving pictures, the radio, golf — they'll put books out of business. Twenty-five years from now you'll find yourself at the end of a blind alley. Books are doomed.'

I cite this somewhat private conversation — which, incidentally, took place a dozen years ago — not with any sense of personal vindication, but because it represents such a drear and philistine estimate of literature. There doubtless are other citizens of this country, other guardians of eligible princesses, who hold the same opinion. In that opinion are equal portions of truth and fallacy. My well-wisher first

said that people no longer have time for books — a remark which may apply to New Yorkers with plenty of money to spend, but not to those who are unemployed and impecunious. He put books in the class with other luxuries, which was quite right. He prophesied that reading would show a steady decline, a statement debatable and probably wrong. Finally, he inferred that those who derive their living from books will never be rich. What, never! Well, hardly ever.

But of course it needs a provocation such as this to open one's eyes. And I must say that those words have stuck in my crop. I thought of them as I watched the book business swell up with that afflatus which infected American industry in the last of the platinum twenties; I thought of them as I participated in the grim housecleaning which was forced upon every editorial office by the depression. An incurable optimist, I don't believe that books are doomed. But having counseled authors, edited manuscripts, and studied the public in fat years and in lean, I should be myopic if I did not see some means of improving the market for books, authors, and readers to-day.

To look back on the American literature produced in the decade 1919-1929 is to recall, at first glance, the vigor and variety of the more notable publications: *Main Street*, *Babbitt*, and *Arrowsmith* by Sinclair Lewis, *John*

Brown's Body by Stephen Vincent Benét, Willa Cather's *A Lost Lady* and Dreiser's *An American Tragedy*, *Anna Christie* by Eugene O'Neill, the short stories of Hemingway, the vignettes of Thornton Wilder, the poetry of Millay, MacLeish, Frost, and Jeffers, the history of Charles Beard, the sociology of John Dewey, Page's *Letters*, and Beveridge's biographies of Marshall and Lincoln. I simply wish to indicate that we did produce books of quality, books quite distinctive enough to keep people awake nights.

Judged by its quantity, our production was equally remarkable. With every new book of quality we (I am not boasting — I mean publishers generally) printed ten which were either of specialized content or of ephemeral interest; and these likewise found their readers. Year by year, from 1919 to 1929, the number of new titles rose, year by year the book trade showed a steady increase in the cash value of the business. The peak was reached in 1929, when American publishers sold approximately eighty-four million copies of books for the general reader. Now, even admitting that many of our private libraries serve no better purpose than interior decoration, this figure would seem to indicate that a fair percentage of our citizens were busy reading.

I have said that a good many books 'of ephemeral interest' were encouraged into print. So they were: novels with a flair for daring detail and with a dismal absence of character; biographies of the Freudian and debunking schools, hastily compiled and inaccurate; children's books that were in-
anely written and poorly illustrated. These inferior craft sailed along in the current with books of better make and purpose, and both, be it said, were sold at the highest price the traffic would bear. Why not? A public used to spending \$15 for a theatre seat would

not boggle at a \$5.00 biography or a \$2.50 novel. I do not mean to say that those mediocre books dissipated our taste for the first-rate, but I think it is candid to admit that their presence lowered the tone of the book trade.

When a book sells well, a publisher is naturally enabled to spend more and more money on its advertising. There is no proof that the advertising in our flush years directly contaminated our book reviewers. Yet the fact remains that the advertising of our books throughout the twenties became increasingly misleading. The announcements of the new publications, the 'blurbs' which are prepared within the publishers' offices, passed from the comparative to the superlative. Novel after novel was proclaimed (by its backer) as the discovery of the season, and was recommended to the public as 'the most convincing,' 'the most salient,' 'the most overwhelming,' just as every writer worth a fuss was declared to be 'at the full plenitude (or the happy magnitude) of his powers.' Reviewers delight in being quoted, and, considering their meagre pay, one can hardly begrudge them this vanity. It became one of the knacks of the fraternity to frame somewhere in the review of a book a phrase or two which, when lifted out and mounted on an advertisement, would gleam like lustre. Publishers do not, as has sometimes been contended, arrange to have their books reviewed by the author's best friends, but publishers can arrange to send complimentary copies of a book to a friendly audience and to use the verbal bouquets they receive for all they are worth. There are, in short, a number of ways of painting the lily.

Another misconception appeared in those figures which are usually emphasized at the bottom of advertisements, '8th Printing' or '15th Impression.' Such statistics are calculated to make you feel a country cousin if you have n't

read the volume cited. But, unhappily for veracity, there was no standard measurement of what constituted a 'printing' or an 'impression.' Some publishers dealing in a large way with a very potential title would run the early editions in 5000 lots, while others would credit themselves with a new printing each time they bound up 500 copies. The publishers knew among themselves which figures were telling the honest story. But did the public? Let us say that your eye has been caught by an advertisement stating in boldface type that *Smothered Lovers* is now 'in its 97th thousand.' 'Wow,' you say, 'I guess I'll have to read that novel if I am not to be left behind.' The panic appeal. But the truth might show that when that advertisement was actually written the sale was approaching seventy thousand. Reorders were coming in fast enough to warn the publisher that he had better lay in paper for his future editions. He orders paper to carry him up to the 97th thousand and promptly coins the slogan, 'Now in its 97th thousand.' Is this dealing in futurities?

Finally, for those not content with the trade editions, for those who wished to acquire (without effort) a reputation as a collector, the publishers revived a special gilt-edged product known as a 'limited edition.' Now the pursuit of legitimate first editions and the acquisition of association copies are both perfectly healthy pastimes. I mean by an 'association copy' a volume, generally of the first edition, which has been inscribed by the author and presented to you in all friendliness. I have a few such. They constitute, indeed, one of the few assets I shall probably be able to leave my heirs. But an author's circle of acquaintance is apt to be a small one. In order to give the amateur collectors a better chance publishers did two things. First, they sent their booming authors on a tour

of our largest department stores; there the authors were placed on exhibition and signed copies of their books as fast as the money hit the counter. Secondly, they began to issue costly but limited editions of their more salient new books. Certain authors — James Branch Cabell, for instance, is one — lent themselves to this practice very gracefully. Just how much the limited edition of *Jurgen* would bring to-day in a forced sale I cannot say. But what about '*Dancing Lobsters and Five Other Tales*' by Niemand Zuhause with thirteen illustrations by Puvis de Puvis, printed on hand-laid Holland paper from a specially designed Rubberneck Type and limited to four hundred copies, of which this is No. —'? There were a good many ninnies who paid ten dollars for those *Dancing Lobsters* in 1929 who might find it difficult even to give the book away to-day.

Here, then, is a thumbnail sketch of the American book trade at its best and at its worst in the platinum twenties.

II

Came the dawn — and a rather overcast morning it was. With panic in the air and stocks on the run, people began to keep their money in the sock. Luxuries were naturally sensitive to this parsimony. To avoid buying luxuries all you have to do is to tell yourself (thank you, Mr. Coué) that they are n't worth much, they are n't worth very much, they are n't worth very much anyway. By January of 1931, American citizens were beginning to find unsuspected virtues in Fords and Chevrolets; they were beginning to prefer homemade gin to Booth's, the movies to the theatre; they were beginning to use fifty-cent golf balls instead of the dollar variety, and to buy fewer books.

Sometimes when I was in the com-

pany of candid friends I would hear a protestation such as this: 'I know you won't like us to say so, but we've simply got to cut down on our books. They're expensive; only one in ten is really worth keeping, and the rest just clutter up the apartment.' That was the handwriting on the wall. As might be expected, the inflated values were quick to wilt: those limited editions of perishable authors, on sale at handsome prices at Christmas of 1929, were being marked down or exchanged the year following. But publishers were not losing sleep over this side line. They were wondering what was to happen to their more dependable assets, the better novels and biographies, the books of academic or scientific content, enjoying a steady demand in the past.

A good merchant anticipates the tide, and, once the depression set in, it was no news to publishers that book prices would have to come down. The problem presented itself simply as one of manufacturing costs; the Code had not yet begun to police the premises. Printers and binders were prevailed on (with an axe) to accept lower terms; the purchase of the different grades of paper was conducted with economy in mind; dust jackets became less colorful, gold was used on the cover sparingly if at all, and, most important, the size of the edition was more closely calculated. But not closely enough. Publishers were still tempted to base their new printings upon the sales of the preceding year. But the system will not work when you are slipping downhill.

Publishers knew that the book trade could no longer absorb 2000 copies of almost any first novel; they knew more as their sales cards began to show them that this book on modern art had sold exactly 623 copies, this volume of poems 401, and this collection of French travel letters had staggered on to 1130 copies and then quit. Ingenuity was called in to combat these

red figures: books designed for a limited audience were printed from movable type (at a saving roughly of about \$200 an edition) and English books were reproduced for American readers by the photo-offset process — that is to say, by the collaboration of camera and printing press. By saving a penny here and three cents there, prices came down to new levels. Three-decker novels, instead of being published in parts, were sewn up between single covers. I attribute a measure of the success that came to *Anthony Adverse* to the singular skill with which that omnibus was manufactured. When a household found it could buy several months' good romance for as little as \$3.00, it did n't begrudge the money. But *Anthony* was and is a white whale.

In their zeal to cut corners, some publishers created a distinctly false impression along Main Street. The cry of 'paper books' was revived as a means of lowering the cost of novels. This experiment is not a new one; it has been tried out in this country at various times and never with sustained success. The economic difference between a book bound in paper and one bound in cloth boils down to about eight cents a copy. The publication of paper-bound novels¹ at the arbitrary price of \$1.00 depends upon other elements than binding and can only be self-supporting when (1) labor costs have been reduced to a point comparable to those in Europe; (2) authors have agreed to take a 50 per cent smaller royalty per copy; (3) the public has shown its willingness to eat up a minimum printing of 5000 copies of every book so published. This the American readers have steadfastly refused to do. Nor did hard times in the early thirties change their mind. Their

¹ The sale of light fiction bound in cloth for \$1.00 was attempted and similarly demonstrated to be a flat failure.

appetite for these cheap paper-bound volumes proved as fickle as ever; one after another the paper editions folded up, leaving their particular problem still to be solved, and also leaving — though quite unintentionally — a growing suspicion in the mind of the public. What about those dollar books?

But confusion was soon to be worse confounded. For suddenly in the summer of 1930, in drug stores, tobacco shops, fruit stores, and other unlikely spots, there sprang up whole flowerbeds, whole counters full of gayly decorated and respectable books at amazingly low prices. The public never stopped to think that these were reprints, that in some cases these books — *The Mind in the Making*, *The Life and Letters of Walter Hines Page*, Ludwig's *Napoleon*, Wells's *Outline of History* — had been run off plates which had already accounted for 50,000, even 100,000 copies years previous. The public did not consider the enormous saving in plant cost, the reduced margins, the coarse paper and plain binding, that made these prices possible. John Doe merely hunted through the mass, found two volumes of Page's Letters, remembered he had intended to read them, remembered that the pair had once been priced at ten dollars, paid down his two iron men, and walked off well satisfied.

Strewn through these assortments of reprints were certain less appetizing dainties which I might term wall-flowers. When the natural life of a book is over, the publisher is apt to have in his bins a few hundred (or a few thousand) copies for which there is no call. When after two or three years it is evident that no one will dance off with them, they become 'remainders' and are sold to jobbers. These remainders were also liberated in the lean market at cut prices; they were bought and, I dare say, embraced with little relish. It was a clever stroke to serve up —

temporarily — these reprints and remainders at depression prices. But it helped to debase the currency of *new* books.

Small wonder that the public became price-conscious, even a little leery about its books. Small wonder that American publishers who in 1929 had taken in, roughly, forty-two million dollars' worth of receipts from the sale of their trade publications — I mean novels, biographies, travel books, and so forth, as apart from textbooks — in 1933 found their proceeds cut to a rough total of twenty-two million. In short, a 50 per cent decline in book buying had taken place in four years' time. It is illuminating to get inside those big figures. From 1929 to 1933 our volume of fiction (measured not by the number of new titles, but by the number of copies distributed) shrank 55 per cent; the volume of children's books shrank 38 per cent; biography, 47 per cent; books about fine arts, 70 per cent; religion and philosophy, 61 per cent. The only item which showed a positive increase in activity was that termed 'sociology and economics.' Thus the effect of the New Deal upon literature.

Were books doomed? Not a bit of it. People simply could not afford to buy them as freely as before. Reading did not pass into the discard along with miniature golf courses and international matches; I should say it definitely increased. The American Library Association estimates that between four and five million new borrowers were added to library lists during the years I have just mentioned; in that time the total circulation of public library books in the United States increased by nearly 40 per cent. The same years witnessed the enormous, unchecked, and almost immeasurable development of the circulating libraries, which have invaded practically every literate town and city within reach. Judging from

the depression, by the time we all come to live on a four-day week our reading will really amount to something.

III

It is by now permissible to consider the author. Popular romance to the contrary, his lot is not always a happy one. Industrially, American authors can be sorted into one of two guilds: those who depend upon the magazine industry for the major part of their livelihood, and those who (with private means or uncompromising courage) take the longer risk of committing themselves to the six months', the ten months', the eighteen months' toil of writing a book. I am speaking primarily of authors — not dramatists, radio performers, or rewrite men for Hollywood. In prosperous years both guilds enjoyed considerable revenue from their royalties and from the by-products of their industry — film rights sold to Hollywood, dramatic rights to a producer, serial rights to periodicals and syndicates. But it was a very different story when the depression closed down upon motion pictures, theatrical production, and magazine circulation.

In normal times the financial status of our authors admits of three levels. At the top are a small group of what I might call literary magnates — E. Phillips Oppenheim, Zane Grey, Mary Roberts Rinehart, Willa Cather, Sinclair Lewis, Kathleen Norris, Louis Bromfield, Temple Bailey — each one of whom in full production might earn in the neighborhood of \$70,000 a year. A fellow publisher, Thomas R. Coward,² has made a composite picture of the income of a popular novelist whose new book has just sold 50,000 copies and who is eager to pursue every offer. Before you read these figures, let me caution you that mighty few moguls are

capable of this earning power and still fewer of them can maintain it for long.

Royalty at 15% of \$2.50	\$18,750
Motion-picture rights	25,000
Sale of serial rights on next novel . . .	15,000
Miscellaneous short stories, all written but up to now rejected	3,000
Contract for 6 short stories	6,000
Lectures (net)	2,500
Miscellaneous rights (English, foreign, second serial)	2,500
Motion-picture contract for editorial work for 10 weeks at \$500 a week . .	5,000
	\$77,750

I doubt if in any year as much as one per cent of the writing profession is capable of reaching this maximum figure. In 1934 there were exactly fifteen authors whose books sold 50,000 copies or more in the United States.

On the plane next below will be found a group of well-known novelists and short-story writers, authors of the best technical books and the standard juveniles, and a few exceptional biographers who with utmost industry are able to average an earned income of between \$10,000 and \$15,000 a year. They comprise perhaps 12 per cent of the writing profession.

By simple subtraction, 87 per cent of our army of writers are to be found on the third and lowest plane. To put it generously, the annual proceeds of their writing range somewhere between \$800 and \$5000. The Authors Guild puts their average earning *in good times* at \$2500 a year. Since many of them are people of maturity with families to support, it goes without saying that the members of this third estate must depend either upon private incomes or part-time jobs if their bills are to be met. For them literature is a poor staff and a not altogether reliable crutch.

The pinch of hard times was of course felt on each of these levels. The shrinkage of advertising and circulation compelled magazine editors to economize. That is to say, they reduced the size of

² 'Does Authorship Pay?' by Thomas R. Coward, *Literary Observer*, August-September 1934.

their publications, they printed material they had paid for but never used; they bought, in short, about half as much new material as they had needed in the happy days. Magazine writers who had been living in assumed security suddenly realized that their markets were disappearing and — worse — that even when a sale was made they were likely to receive a price smaller by 50 per cent than what they had been accustomed to.

Meanwhile the book writers were facing their own particular grief. Readers, as I have said, were losing the habit of buying the many books they wanted; they had suddenly become price-conscious. They bought only the irresistible books; the others were borrowed from the public libraries or rented from the circulating libraries in the bookstores. The royalties of even the best-established writers came down on the toboggan; the royalties of authors whose books customarily sold over 10,000 copies suddenly dropped 50 per cent below the 1929 return. The royalties of unestablished writers, by which I mean first novelists, young poets, beginning biographers, dwindled to the vanishing point. 'Fewer and Better Books' was an ideal rule to enforce if booksellers and publishers were to survive. But, reduced to financial terms, it meant that mature authors had to tighten their belts and beginning authors had to surmount a higher wall than heretofore.

Readers became price-conscious. It was perfectly natural that they should. Families accustomed to buy twenty books on an income of \$10,000 a year cut themselves down to six volumes when their income was reduced by half. A survey of 100 families of Ford employees, with incomes averaging \$1711.87, showed that these households were spending 20 cents a year for their books, other than schoolbooks. Encouraged by economy, a mushroom

growth of circulating libraries sprang up throughout the United States, not only in bookstores but in drug stores, fruit stands, news stands, stationery shops, private homes, even in comfort stations. Their number is legion. Their effect upon publisher and author has never been accurately estimated. In 1928 the circulating libraries then in operation were said to have absorbed about 15 per cent of the fiction published in the United States; to-day they absorb close to 40 per cent. (The percentage varies from 15 per cent to 75 per cent, depending upon the nature of the novel; an average of 40 per cent would seem to be a fair guess.) In England, where the situation has developed more rapidly than on our side of the water, they are said to absorb close to 80 per cent of the current novels.

I should perhaps explain what I mean by 'absorb.' The circulating library in the Old Corner Book Store of Boston is operated with remarkable efficiency. The books placed in that library are expected to — and do — maintain an average of twenty rentals per volume. That is to say, twenty households — or perhaps thirty different people — read each book in that library before the copy is finally sold or withdrawn. Thirty readers have taken their turn with a new novel. The fees which they paid for their enjoyment were collected by the bookstore. But the author's reward for his share in the business was simply the royalty on the single copy sold to the circulating library. If the book was originally priced at \$2.00, his average royalty amounted to 24 cents. In other words, thirty people read this one copy of his book, said 'Thank you very much,' and paid him a total of 24 cents!

Now extend this illustration to cover the country. The novel we are speaking of achieves, let us say, a total sale of 15,000 copies — a much better than average performance. If my suspicions

are justified, 40 per cent of this figure — or 6000 copies — will pass into the circulating libraries. Presuming that the libraries maintain their average rental, these 6000 copies will be rented by 120,000 patrons; they will probably be read by a good many more, yet in the end all that the author has to show for this loaned entertainment is the meagre sum of \$1440 (\$1800 if he has a reputation) — his royalty on the 6000 copies sold to the libraries. If that's not unfair I'll eat my hat.

Whether a book rents twenty times, whether it goes into fifty-two households, as was the case with Dr. Harvey Cushing's *Life of Osler*, which I happened to sample from the Old Corner shelves, whether it is rented (and half-read?) by the multitude who were swallowed up in *Anthony Adverse*, the element of injustice remains virtually the same. The royalty contract between author and publisher, the percentage of profits which a writer is entitled to, has altered very little since the copyright law was invoked to enforce honest dealing. It was assumed by both parties that copies of a book distributed through the normal commercial channels would be read by no more than two, three, or four people, and when you remember the number of *unread* books in your own private library, you will realize that this was not an unfair assumption. Not, that is, until the circulating libraries threw things out of kilter. 'Well,' your answering argument may be, 'if more people are reading each copy of a printed book to-day, there is only one thing to do. Raise the price.' And that leads me to consider the cost of a book.

IV

Sherlock Holmes, Dr. Watson, and Sir Arthur Conan Doyle between them have been responsible for popularizing that great pastime of the twentieth

century, the reading of detective stories, a pastime which many brainy people (and some who are not) find more relaxing than cards or alcohol. But once the killer has been identified, once Gwendolyn's innocence has been proved and the guileful villain handcuffed, the detective story becomes just another book, one to be loaned, given away, or returned to the library as rapidly as possible. 'Why,' demands the constant critic, 'charge two dollars for a book no one wants to keep? Surely you can make it for less.'

But can we? The two-dollar price is to-day affixed to detective novels, Western novels, to the 'hot' romances that swarm in cheap circulating libraries, to most first novels, and to short books by established authors. By way of answering the critic, I should like to exhibit a manufacturing sheet which has been compiled with very strict attention to averages and which seeks to identify the chief expenses in printing 2500 copies of a two-dollar novel whose text runs to not more than 320 pages.

<i>Per copy</i>	
Retail price.....	\$2.00
Average discount to bookseller and jobber, 42%.....	.84
Publisher's net receipts.....	1.16
Average royalty to author....	\$.24
Printing, paper, binding.....	.25
Plates.....	.28
Advertising.....	.17
	.94 .94
Publisher's operating balance.....	.22
Publisher's overhead, 28% of net receipts	.32
Publisher's approximate loss.....	\$.10

In short, what my figures are trying to say is this: that after the publisher has paid the bookseller his commission for selling the book, paid the author his royalty, paid for the manufacturing of the finished product, and for its advertising, he has a remainder of 22 cents

with which to meet his overhead charges. 'Overhead,' I realize, is one of those lovely vague words which business men use to impress their wives. The bookseller's 'discount' will be eaten into by the 'overhead' — the operation — of his shop. The author's royalty is no clear profit, for out of it he has got to pay the 'overhead' — the expenses — of writing: that is to say, the fee of a typist or secretary, the purchase of books or source material, and the rent of his workshop. In this instance a publisher's overhead consists of the following items: his and his associates' salaries, office rent, taxes, traveling and selling expenses, warehouse and shipping expenses, unearned advances to authors, and bad debts. It is an economic necessity to-day to charge off to overhead 28 per cent of a publisher's net receipts. If this be done in the instance of a two-dollar novel which has sold 2500 copies and no more, it will be seen that the publisher has sustained a paper if not an actual loss of 10 cents a copy. In actuality a novel with such a small sale as this not only does not show a profit; it cannot even pay its rightful share of the publisher's expenses. Its financial failure has to be balanced by the success of the best seller on the list — if there is one.

These figures may explain to you why the new book of a well-known novelist — why, in other words, the novel which can depend on a loyal audience — is usually priced at \$2.50. Understand, please, that the author, the bookseller, and the publisher take their proportionate percentage of this increased price. These books cannot be allowed to appear stillborn; they have to be pushed, their promotion costs are high, and the publisher therefore must have his share of that extra 50 cents if his advertising is to sell the book and please the author. These books are the breadwinners of the entire list; such profit as they may allow

must offset the losses incurred by those less known and neglected volumes which a publisher honestly seeking for new talent must hazard. 'Fewer and Better Books' — yes, but not to the total exclusion of the promising aspirant. How many books of Conrad's do you suppose proved themselves failures before the public learned to respect his genius? The first three.

In the face of this equation a full-length new novel cannot fairly be priced below \$2.00.³ Yet your own experience will tell you that considerable reductions have been made in the price of the more expensive volumes. A new biography with half-tones, maps, gilt top, and good binding (Douglas Southall Freeman's *R. E. Lee*, for instance), which would have sold for \$5.00 in 1929, to-day can be had for \$3.75 a volume. Books of nonfiction generally — even those of 175,000 words — have been stepped down from \$5.00 to \$4.00 and under. This is good psychology, for a \$3.50 price still leaves a substantial portion of a five-dollar bill in one's pocket, whereas anything over \$4.00 reduces the matter to quicksilver. This economy in the field of nonfiction is the more remarkable if you will bear in mind that, according to statistics obtained in 1931 (before publishers were properly cautious), in the first year of publication four out of every ten books of nonfiction sell less than 1000 copies; four sell over 1500; three sell over 2000; two sell over 3000; and one lone volume sells over 6000. If, therefore, you as a consumer will agree that book prices cannot be measurably reduced below their present level, I as a producer will give my word that they will not be measurably increased —

³ By this statement I do not pretend to speak of the price-cutting or what is known as the 'loss-leader' policy of certain department stores. Price cutting drove the small booksellers to the verge of bankruptcy in 1905-1908; it was on its way to the same objective in 1932-1933 when, mercifully, the Code interfered.

despite the upward pressure of the printing Code. My promise will be no good if we have Inflation.

But, if economy precludes our raising the price of a book for the readers, how are we ever to secure for the author his rightful share of those retail fees which the circulating libraries are reaping in these lean years? The circulating libraries argue that they must maintain an average of twenty rentals a book if that branch of their business is to operate profitably. This sounds to me rather high. Suppose we reduce the average to fifteen.⁴ Now if one admits the principle that an author should be reimbursed by each reader for the pleasure his book affords, would it not be just to ask that the circulating libraries divide with the author and publisher the rental fees—in other words, the excess profits which they take in after the first fifteen borrowers have been accounted for? This would seem to me the ideal division. But I recognize that it would call for elaborate bookkeeping and would of course be difficult to enforce.

So I turn to a simpler solution. Let us say that the Old Corner Book Store of Boston buys twenty-five copies of a new novel by Edward Weeks. Fifteen of these copies will be reserved for general sale, and, if the shop and I are lucky, the public will plunk down \$2.00 for each copy. But ten copies are to be placed in the circulating library; and these the bookstore is obligated to purchase from my publisher at \$2.50 each—that is to say, at the increased premium of 50 cents a copy. A sticker—a license, if you like—is placed inconspicuously on the inside cover of the book, authorizing the inclusion of the book in the circulating library at the premium price. This extra pre-

mium of 50 cents is paid to the publisher, and half of it helps to increase my royalty account. The remainder goes into the publisher's treasury to offset, you might say, the loss of sales indirectly attributable to the lending of books.

This licensing of books was first experimented with in Denmark, and I am indebted to the Danish author, Peter Freuchen, for an accurate account of the crusade which he led, not against the circulating libraries as we know them, but against the public libraries, which are subsidized by the state and the municipalities in his enlightened country.

Here, in the words of Mr. Freuchen, is what happened:—

Our sales went down, and in a number of cases, when we checked, we found that people now got in the habit of borrowing books who used to buy them. That was why I, in a meeting of Danish authors, set forth my plan to make the libraries pay something to us. The authors did not think it possible, but I had printed in my next book, *The Sea Tyrant*: 'This book may not be lent out in libraries without the permission of the publisher.'

By mutual understanding a librarian did, and I sued him. I won in the first court, and he brought it to the Supreme Court of Denmark. I also won my case there. Thus it was proved that the lending of books can be prohibited in Denmark.

We then arranged it in the following manner: The libraries that buy books have to buy licenses, too, to lend the book out. In this way the libraries buy a license mark from the publisher (a sort of stamp) which must be glued in the book on the inside of the book cover. The price of that license mark was equal to the retail price of the book. The money thus collected was to be divided between the author and the publisher.

Mr. Freuchen, you see, was intent on doubling the price of his book. But this, I am afraid, would be more of a tax than our circulating libraries could

⁴ My arithmetic is as follows: 15 rentals, averaging 15 cents each, net \$2.25. If the book is then sold—as it often is—for 50 cents, the total revenue of \$2.75 should be profitable—to someone!

afford. Unhappily for authors, his little revolution then petered out.

I was very much applauded by the authors when I won the case. But that was all. We have a socialistic government, but as soon as the authors, for the first time, started a trade-union movement, the government jumped on us. It was said to those of them that had pensions from the state that this pension would be taken away from them if they would not permit the libraries to lend out their books free. That stopped lots of them. They are poor people, and they dare not throw overboard the state's money, which provides their house rent. Result was that the whole movement fell to pieces. I am still the only author in Denmark that has that remark printed in my book.

I don't want to involve our public libraries in this adjustment. They perform a public service, they receive a much smaller discount than the bookseller, and they are particularly valuable in giving continued life to old books. But circulating libraries which make hay while the sun shines on our *brand-new books* should, I firmly believe, share a portion of their excess profits with the author and his publisher. There are said to be between forty and fifty thousand circulating libraries now operating in the United States. In England, where the movement is as wildfire, I am told that in addition to the five big chains of Smith's, Boot's, Mudie's, Times, and Harrod's there are seven thousand circulating libraries which no longer require even a deposit. You are simply loaned any book in their possession (their selection does not always include the best) at tuppence a week.

Let us be candid: these agencies — which have certainly come to stay — are a mixed blessing. In affording new outlets for books and in attracting new readers the country over, they are a positive asset. Over 50 per cent of our rural population have no ready access to bookstores to-day. As a new depart-

ment in the general store, the circulating libraries will help to stimulate reading in the far corners. Admittedly they obstruct the purchase of books and in so doing have appropriated to themselves an undeserved share of the author's potential earnings. This financial maladjustment will have to be corrected if our book writers are to be self-supporting. Finally, by stimulating the publication of what the trade terms 'lending-library tripe,' by stimulating the distribution of silly, 'warm' romances, — you know the titles: *Hot Flesh, Bed and Bored, Two Girls in a Studio*, — they have definitely helped to cheapen the production of books in this country. There are certain circulating library chains that pretend to very little interest in fewer and better books by the best talent we can produce. They demand quite candidly those amatory novels having what they call 'box-office appeal.' To meet that demand some of our smaller publishers are now bending their entire energy. I must emphasize this cheapening influence of the inferior circulating libraries when as a publisher I am asked to believe that these new agencies are outlets for good books the country over.

V

You have by now argued me into the mood of a reformer. And the world is never as black as a reformer would have you believe. The depression in the book trade reached its low tide in the summer of 1933, and since then the current has turned in a more heartening direction. American readers purchased 10 per cent more books in 1934 than they did the previous twelvemonth, and very glad we editors were to hear it.

But a housecleaning is not really efficacious unless it affects all the inmates. If American readers are again acquiring the habit of buying books, it is, I think, because of certain healthy

changes which are manifest in publishing practice.

In the first place, publishers worth their salt are more exacting of the books which they add to their list to-day. It is harder to get a book published now than it was in 1929 — and it ought to be. Mediocre books are no longer fobbed off under the categories of travel, juvenile, and biography. They are concentrated in the cheap circulating libraries and covered by that comprehensive word 'tripe.'

Secondly, publishers are more conscientious about the prices they charge. Expensive books have been reduced to lower levels, limited editions are few and far between, and there is an economic tendency to compress the big three-decker novels (increasingly popular, be it noted) into the dimensions of a single volume. Occasionally one still hears of a backslider, of a novel originally published at \$2.00, then awarded the Pulitzer Prize, and, in response to the fresh demand, promptly reprinted in large editions at \$2.50. The public may never have been aware of this extra pound of flesh, but I think the consensus of publishers would regard it as sharp practice.

Thirdly, advertising shows signs of becoming more legitimate and less posterous. Neither in the bookstores, in the catalogues, nor in the advertising columns of our literary supplements are you conscious of so many superlative encomiums. The increasing candor in selling books is evident in the work of Miss Virginia Kirkus. She has made it her business to secure proof sheets of all the more notable books; reading them night and day and several weeks in advance of publication, she is able to pass on to some sixty bookstores that subscribe to her service a forecast of each book's contents, a forecast honest and calculating, thus helping the bookseller to place his order with more knowledge than before.

Fourthly, if that slogan 'Fewer and Better Books' be applied intelligently, I believe we shall all be better off. I could wish that there were some central and confidential bureau to whom publishers might report their book projects before the contracts are signed. Such a bureau would certainly prevent the appearance — within two months — of six books on Technocracy, seven biographies of Knute Rockne. It would avoid the coincidence whereby three publishers brought out and widely advertised in a single season three carefully written and scholarly biographies of Thomas Jefferson. Such a bureau might also be of service in helping editors to schedule the publication dates more uniformly through the year. At present there is so much congestion in the months of October and November that many books worthy of note are simply lost sight of in the Christmas crush. 'Fewer and Better Books' will ease the lot of the bookseller by relieving him of sticky stock; by the suppression of the ephemeral it will definitely increase book buying, and so long as it is applied sensibly it should intensify rather than impede the emergence of new talent.

Finally, I must come back to the author. Taste his books through the agency of the circulating libraries if you will, but when you find a book which is rewarding, when you find a book which has merit and is worth keeping, then buy it! For if you don't the authors will go to the wall. Believe me, if royalties fall much lower than their present level our book writers will have no choice but to wear the red kimono in earnest, to write short stories and smart serials instead of books, to hire themselves out as scenario writers, to write (under assumed names) that sticky tripe which clutters up the worst circulating libraries, and to wear themselves out on the lecture platform or crooning over the air.

WARTIME VERSES AND PEACETIME SEQUEL

'We were all writing verses in those days. The impulse flowed along every trench from the Channel Coast to the Swiss border. We wrote them in dugouts, shell holes, even with our gas masks on. We imbibed inspiration with our emergency rations.'

— CAPTAIN A. C. MACALISTER

I. THE AIRMAN'S RENDEZVOUS

AND I in the wide fields of air
Must keep with him my rendezvous.
It may be I shall meet him there
When clouds, like sheep, drift slowly through
The pathless meadows of the sky,
And their cool shadows move beneath . . .
I have a rendezvous with Death
Some summer noon of white and blue.

Oh, he must seek me far and wide
And track me at his fleetest pace,
For there are lonely depths in space:
Solitudes where I may hide,
Laughing at him when he has gone
On a false scent, with laboring breath . . .
But I've a rendezvous with Death
Over Verdun as night comes on.

Perhaps, some autumn afternoon,
Of cloudless skies, far in the blue,
Beneath a ghostly waning moon,
I shall be flying without care
Or thought of war, or thought of death;
Unwarned that he is coming, too,
Swift to his well-planned rendezvous,
Until I hear, with darkening brain:
'Well met! We shall not meet again.'

*Escadrille Spad 124, Groupe de Combat 13
CHAUDUN, AISNE SECTOR, June 1917*

II. AFTERWORD

READER, lest the lines foregoing
Start belated tears to flowing;
Lest you, sighing, think: 'How sad!
Dead long since, no doubt, poor lad!

His upgathered bones with those
 Lying now in countless rows
 On the battlefields of France' —
 Sheepishly I now advance
 To as sheepishly amend them:
 To confess 't was I who penned them.

I did not meet him overseas.
 Twice he made me fan the breeze:
 Once, near Soissons, on the Aisne.
 (That was near enough!) Again
 Hard by Pagny-sur-Moselle;
 I remember, as I fell,
 Thinking: 'This is surely it!'
 But it was n't. When I'd hit
 I was still extant, and Death
 Hastened on, 'with laboring breath.'

Laboring breath indeed! Not so.
 I know, now, why he let me go.
 Lord! That I was once so vain
 As to think me worth the pain
 Of a chase! And once so proud
 As to say (or write) aloud
 That the chase would *be* a chase
 Worthy of his fleetest pace!
 Shamefully I hang my head.
 This is what he must have said:

'What? A rendezvous with me, sir?
 Very well; I quite agree, sir.
 Meanwhile, will you kindly wait
 Till I choose to set a date?
 Just at present I am — sorry! —
 After rather better quarry.
 You may thumb your nose at *me*?
 Why, you wretched little flea!
 If I wanted to I'd flick you
 Out of time so blessed quick, you
 Would be nothing, even less,
 Nothing save a nasty mess
 On the ground. And now, adieu.
 Meanwhile, live. I wish you to.
 Mine is 'labored breath' you say?
 Good! Then I shall come that way.
 I shall labor on your trail
 Slower than the slowest snail.'

Thus he spoke. The years creep by,
 And there was I and here am I!
 But, alas! when I compare
 The I of 'here' with 'over there,'

I mutter: 'If that man was me
Can this present wreck be he
Who once sailed the skyey main
In a single-seater plane?'

To which my shaving glass replies:
'There are various kinds of I's.'

Meanwhile, still he laboreth,
Anything but short of breath.
He is taking me by inches,
Little grabs, and jabs, and pinches,
And each morning when I wake
Less remains for him to take.
Gone is youth, adventure, glory;
I am middle-aged and hoary.
Of flying I no longer talk:
It's all that I can do to walk!
I dare not look into the sky
For thinking of the days gone by;
I keep my eyes upon the ground,
And if, perchance, I hear the sound,
The faint, far-off, familiar drone
Of a passing plane, I groan
And press a hand to either ear
That I may no longer hear.

On he comes, 'with laboring breath' . . .
(That much of what I wrote was true),
But not where clouds drift slowly through
The pathless meadows of the sky
And their cool shadows move beneath;
I have a rendezvous with Death;
I know it well. I hear his tread.
I have a rendezvous with Death,
Propped up with pillows, in a bed!
And when we've met, someone will say:
'I hear old *Chose* has passed away.'

Oh, the everlasting shame
Of a rendezvous so tame!

Yet, when I know that he has come,
Heaven grant me strength to thumb
My nose at him before he take me!
Let not my courage then forsake me!
Let me have the sand to wag
A last defiance, full of brag.

J. N. H.

January 19, 1935

THE IRRESPONSIBILITY OF LABOR

BY GEORGE E. SOKOLSKY

'There is no employer or group of employers who can keep employees from organizing if they want to organize.'

— MATTHEW WOLL

I

PRESIDENT ROOSEVELT, in his statement to the Executive Council of the American Federation of Labor on February 11, clarified the attitude of his administration toward organized labor. He said: —

It must be obvious that the best possible result in rehabilitating our economic structure is to be found in the well-organized and highly developed organization of both employees and employers, with their relationship resting upon the foundation of conciliation and arbitration and the full and frank recognition of the unescapable community of interests to be found in industry itself.

The Federal Government has indicated through the National Industrial Recovery Act its desire that labor and management organize for the purposes of collective bargaining and the furtherance of industrial peace and prosperity, but the Federal Government cannot, of course, undertake to compel employees and employers to organize. It should be a voluntary organization.

Notwithstanding the inability under the American democratic system of the President or the Congress to 'compel employees and employers to organize,' the Blue Eagle campaign and the operations of the NRA have proved that government has — for a time, at any rate — the indubitable power to make

its wishes difficult and unprofitable to reject.

Collective bargaining, whether voluntary or involuntary, must be recognized as a method of employee-employer relationship which enjoys government sanction and support, which labor, organized or unorganized, approves, and which capital can no longer oppose. No matter what else comes of the New Deal, collective bargaining, in some form, will be congealed into the American industrial system.

II

When a labor leader sits opposite a capitalist in a discussion over the terms of an agreement, the two sides are not evenly matched. Labor undoubtedly is in the stronger position.

The capitalist represents property which can be attached by a judicial decision. Against him and his corporation a judgment is likely to hold. He can be sued and, should he lose his suit, damages can be collected. Should a strike be of long duration, plant overhead reduces his profits or may wipe them out. In some commodities where competition is very active, outlets once lost may never be regained.

Labor is in altogether a different position. The union, which the labor

leader represents, is not incorporated. Its officials cannot be sued for the damages which fall upon capital as a result of a strike. When an agreement is signed with a union, it can be broken by the union at will without recourse. Even when codes provide for a specific method of agreement enforcement, as in the automobile and the newspaper codes, labor contends that the agreement may be voided under certain conditions. For instance, in the case of the newspaper guild, the union did not like the particular government organ assigned to deal with the problem; in the case of the automobile code, the A. F. of L. resented the implications of an election of employee representatives which went against them. Labor can only be brought into the courts when a felony or a misdemeanor is committed by individuals; the union or the officers of the union as such are without legal responsibility.

William Green, President of the American Federation of Labor, has stated the case against the incorporation of labor unions powerfully and succinctly:—

Trade-unions in no way resemble business enterprises. Trade-unions do not engage in business for profits, they do not assume business risks on which losses may occur. They must be compared to such voluntary organizations as benevolent and educational societies, rather than to business organizations. Trade-unions are associations of members who are seeking to promote the welfare of their members in ways other than in the making of profits from business transactions.

Trade-unions, therefore, like such benevolent and educational associations, do not need to incorporate. There is no occasion for them to seek this privilege from the state for the purpose of exempting their members from financial liability for the business losses of the association.

Trade-unions enter into contracts on behalf of their members, but these contracts must not be confused with ordinary con-

tracts made between business organizations. Trade-union contracts are not contracts on which losses occur.

They are bargains for wages, for hours of labor, for general conditions of labor. They are employment contracts, which are of the highest interest to society as well as to the union members concerned. Suits to enforce these contracts by either side are virtually never taken.

When capital, as a practical proposition, enjoyed the right to use its strength against labor freely, the irresponsibility of labor was matched, to some extent, by the financial power of capital. Since the advent of the NRA, however, capital is limited in the exercise of its strength by particular provisions of statutes and the codes. On the other hand, no provision is made to force upon labor a similar responsibility. The balanced system which Mr. Roosevelt seeks is unbalanced by the uneven obligations and responsibilities of the parties to the arrangement.

If we analyze Mr. Green's statement carefully, it would appear that he does not face this very definite fact that a strike, called in spite of an agreement or in spite of a code, violates a contract in such a manner that a business may be utterly ruined by the act of individuals who are not responsible for their actions under the law. Even agitation for a strike or the threat of the use of the strike weapon at a time when an industry is operating under a code, which has the effect of an agreement between capital and labor, may prove to be damaging to industry.

Take, for instance, the Kohler strike. The code provided for collective bargaining. A Kohler Workers' Association was organized in September 1933, with a membership of 1800 employees (practically everybody at work in the plant), for the purpose of providing the agency to represent the workers. The American Federation of Labor also

organized a union, No. 18545, for this purpose. No. 18545 demanded that it should be the sole representative of the workers, although its rolls represented a very small number of those employed in the plant. No. 18545 then called a strike, which was attended by violence and rioting and which to a very considerable extent reduced the ability of the Kohler Company to manufacture and sell its wares.

Ultimately the National Labor Relations Board held an election. The vote showed that 1063 voted for the Kohler Workers' Association and 643 for Federal Union No. 18545.

In spite of the very definite decision of the Kohler workers to stand by the company union, in spite of the fact that the election was held by the government and conformed strictly to Section 7(a), pickets and agents of the federal union to this very day interfere with the Kohler plant and with individuals employed there and with the residents of Kohler Village, and no one can be made responsible for the conduct of the union.

Had Mr. Kohler lost his case, he could have been taken into a court and he might have been punished. His opponents are free to continue to harass his business unmolested by the law.

In difficulties which the Chicago Motor Bus Company had with the unions, the Rosemont Garage, situated in a densely populated district, was bombed. In this garage 6000 gallons of gasoline were stored, and, had this tank been reached, there would have been a terrifying loss of life. Apart from this, fire was set to buses, and individuals loyal to the company were attacked and at least one of them was killed.

There is no protection against this sort of thing except as the criminal law can serve to punish offenders against the commonweal. But it is impossible

to hold a union or its officials responsible for acts which may be initiated by the oratory of its advocates. To do that would be regarded as interfering with the voluntary action of workers in organizing for collective bargaining.

III

In the Houde Case, the National Association of Manufacturers filed a memorandum as a friend of the National Labor Board, in the course of which the question was raised: 'Whom does the labor union represent? To whom is it responsible?' Labor, when it treats with the employer, knows beyond peradventure the responsibility of the employer. He is a president or a vice president or a counsel. His relationship to the corporation is made clear by his official position in it. Labor knows that he represents the ownership of the stock of that company.

When a federal labor union asserts its authority in a situation, how is it to be determined — except as in the automobile case, when an election was held — that the union really represents the workers on the company's payrolls? After all, under any interpretation of Section 7(a), the employer is not required to treat with the whole of labor in an industry, whether employed by him or his competitors. He is expected to meet only his own men, those who are on his payroll. When there is a conflict between a company union and a federal union, the employer knows whom the company union represents. He knows that its officers bear a specific responsibility to the whole or a part of the men on his payroll. But to whom is the federal union representative responsible? What is his exact and specific relationship to the names on the payroll?

In the National Association of Manufacturers brief, this question is dis-

cussed from a strictly legal point of view: —

Every person has a right to know with whom he contracts. It is an elementary principle of contracts, firmly established, that a person has a right to know with whom he negotiates to contract and with whom he contracts. The parties to an agreement are as important as the terms of the agreement itself. . . .

These principles have been reaffirmed by the authorities charged with the administration of the NIRA. In release No. 1592 it was said: —

‘The provisions of the much discussed Section 7(a) are merely the affirmation of a constitutional right of liberty of contract which has been in fact recently sustained by the Supreme Court when expressed in almost the same words in another federal law. . . . The NRA has steadfastly insisted upon preserving the constitutional guarantee of liberty.’

The statute does not authorize or permit anyone to represent an employee who has not been freely chosen by the employee to represent him.

It is a well-defined objective of the labor union to restore to ‘the individual as a member of a group the equality which has been lost through the transition from small-scale to large-scale industry.’ If the group is to benefit by the social strength which it generates, it must assume full responsibility for its collective action. Furthermore, it must be prepared at all times to disclose the principals for whom the officers of a union act.

In the general strike in San Francisco in 1934, it was impossible to enforce collective responsibility and it was known that the representatives of labor did not represent the voluntary will of the workers. An existing agreement was broken without adequate and formal notice; the regulations of the unions were invalidated and conciliatory union officials were suspended from union activity. This particular strike is a startling example of the ease with

which an unknown and irresponsible group of men, antagonistic even to the A. F. of L., can organize a pressure group, employ coercive methods, and force an entire city into the panic of a general strike before its back is broken by the general population of the city. All that these individuals had to do was to take control of a union and they were *ipso facto* placed in a position to commit breaches of the public peace which otherwise would have brought upon them the full force of the law.

The right to strike is a fully defended legal right of labor, and, conversely, interference with a strike is employer repression of the voluntary expression of the will of the workers. Neither capital nor the public has any legal right to protect itself from the consequences of confusing irresponsibilities which may arise from this right to strike under any circumstances.

IV

Capital has now been made responsible for the closest scrutiny as to its conduct. Income-tax returns, the provisions of the securities and banking acts, the disclosure of costs and operations under the codes, practically place the capitalist in a glass house. He cannot budge without someone scrutinizing his accounts. He is not to pay commissions which might be termed bribes lest the Nye Commission get after him. Even his expenditures for legal advice, public relations counsel, and advertising have to justify themselves, otherwise he may be accused of playing ducks and drakes with other people's money.

Who, on the other hand, knows anything about the income and expenditure of organized labor? How much comes in as initiation fees, dues, unemployment funds, political assessments, or anything else that occurs to

the organizers? Who knows exactly how much is paid to labor officials as salaries and expense accounts?

Tom Maloy gets himself bumped off in Chicago and it is discovered that he had been engaged in a labor racket which brought him tremendous wealth and a very notable funeral. A few months before he was killed, men entered his house and seized \$50,000 hidden in a cupboard. Thomas E. Maloy was business manager of the Chicago Moving Picture Operators Union. He apparently used his labor union as a private business. His activities were as astonishing as the wealth that he accumulated. An agent of the New York Motion Picture Union is reported to have received gifts of \$55,000 over a period of five years from his union in addition to a salary of \$21,800 a year. In fact, motion-picture and construction unions are notorious for the racketeering that occurs in them.

There can be no advantage in piling up instances of malpractice in labor unions. Nor do I wish to give the impression that I believe that all labor leaders are corrupt and that all unions engage in racketeering. Such a conclusion would be as unfair and distorted as the assumption that all capitalist enterprises are engaged in the sadistic pastime of grinding the laborer beneath a spiked heel. The difference between capital and labor, good, bad, or indifferent, is that capital usually operates under a charter of incorporation, must restrain itself within limits set by the law, is subject to every type of control and supervision that legislatures can devise, while labor not only is uncontrolled and irresponsible, but is protected by specific acts of legislation even from judicial supervision.

And the fact remains that labor itself, including the membership of the unions, suffers from this irresponsibility,

because there is no protection, under the law, for the rights of minority groups within the union as there is for minority stockholders in a corporation, nor can the majority of the membership protect itself against coercive activity by a willful and well-organized minority. The character of a union reflects not the will of the members but the attitude of its leadership, and once that leadership is recognized by the A. F. of L. and is in possession of the funds of the union, it can employ whatever means it chooses to maintain itself in power. The regulations governing unions are not uniform, they are seldom published, and they are never registered with a governmental body. There is no way by which an unincorporated and unregistered body can be required to live up to its own regulations.

The worker who protests against injustices within the union is accused of being either a scab or a Communist. He may be suspended, and thus his livelihood is taken from him. He can seldom apply to the courts for protection, because the very unincorporated character of his association removes him from the protection of the law. His is a mere association of individuals, a mutual benefit society, as Mr. Green puts it, to which the laborer pays considerable sums in initiation fees, dues, and special assessments, over the expenditure of which he has only as much authority as his officers permit him to have. The law cannot protect his right to control the expenditure of these funds.

From this point of view the labor union is an anomaly in a democratic country in which the theory of government is that, in associations of any type, provision shall be made for rule by the majority with protection for the rights of minorities, the whole so organized as to be subject to review by the courts in the interests both of the individual member and of the community.

A chartered corporation is so organized, and when abuses occur the attention of the government and the courts is automatically engaged. No labor union in the United States is organized on that basis.

V

As long as the relations between capital and labor were individualistic, the rules and regulations governing labor unions were, after all, the concern only of the members of a particular union. The outsider, including even the industrialist affected directly by the conduct of the particular labor leaders with whom he had to associate, cared little about the internal procedure of the union. The industrialist then had the right to choose for himself whether he would deal with the union and its officials.

It was labor itself that insisted upon collective bargaining as a procedure; and it is the American Federation of Labor which insists that it alone shall be the agency of collective bargaining. That opens wide the inquiry into the type of union that exists in this country; the responsibility of the union under the law; the responsibility of its representatives; the relationship of craft unions to the Federation; the cost of trade-unionism to the worker; the responsibility of the officers of the union for funds which are entrusted to them by the workers.

And then it is discovered that the entire trade-union structure in this country has been organized on the theory that there shall be no responsibility at any point. The A. F. of L. can dodge responsibility because in theory it is a sort of clearinghouse for autonomous international unions. The international unions are unincorporated bodies with rules and regulations which are not in any manner under governmental or juridical control or even

scrutiny. The officers of the international craft unions have developed a system of 'statesmanship' which justifies secrecy in conduct to prevent capitalist espionage; but it is found that this involves the handling of huge funds without audit or control or even report of any nature, because the funds are used for strikes and for political expenses, which may mean anything at all.

Where an employee representation plan is used, — that is, where a company union exists, — the officers of the union are responsible in the sense that the men know them because they directly selected them and the employer knows them because they work in his plant. But in federal unions the workers may not at all know the 'statesman' who is operating the union. How many elevator boys in New York know Mr. Bambrick who orders them to strike and who threatens to break an arbitration agreement to which the City of New York is a party? Who, in fact, is this man with whom the mayor of the metropolis has to deal? He came out of Chicago, but no one had ever heard of him in New York; yet he can make it impossible for employees to come to terms with their employers because they fear that they will be attacked physically.

Of course, American capitalism is in a manner to blame for some of the more accented phases of this problem. The American industrialists agreed to Section 7(a) of the NIRA, which could only mean a struggle between themselves as responsible legal beings and the A. F. of L. as an irresponsible being. When the American industrialists agreed to the codes, they should have stipulated that the agencies for collective bargaining, on both sides, should assume legal, juridical responsibility. That, like so much else associated with the NIRA and the codes, was left to time and luck. The necessity for clarifying

definitions to fix specific responsibilities is only now obtruding itself upon American industry.

VI

Senator Wagner of New York has accepted the rôle as the legislative protagonist for organized labor. In that rôle he has been presenting legislation which has for its specific objective the establishment of the authority of organized labor in this country. The Wagner Bills of 1934 and 1935 have the same objectives: (1) to equalize the bargaining power of employers and employees; (2) to encourage the amicable settlement of disputes between employers and employees.

I have scrutinized the Wagner Bills closely and I find everywhere references to the responsibility of capital and nowhere references to the responsibility of labor.

For instance, Senator Wagner establishes in his bill a phrase, 'the unfair labor practice,' which becomes a punishable offense. Then it appears in his bills that only the employer can commit an unfair labor practice. In the 1934 bill, an element among the workers could apparently be guilty of an unfair trade practice—namely, those who remained loyal to their employers during a labor trouble. This classification is omitted in the 1935 bill.

Some of the provisions of both Wagner Bills contain startling factors which do not altogether appear on the surface. For instance, every employee representation plan of any industry is practically outlawed because it is possible always to maintain that representation by men employed in a company is a form of coercion. In the *Weirton Case* at Wilmington, Frank K. Nebeker, a government lawyer in charge, developed a psychoanalytical application to the labor problem. His general thesis seemed to be that no

company union could be any good since those who are in such a group naturally favor their bosses because they work for them. In the course of the argument, this dialogue occurred:—

THE COURT. If that coöperative spirit in fact did animate this company and its employees, then their coöperating was all right?

MR. NEBEKER. I would not say so. If it animated the employees, then the company union was all right, but even though they had the most patriarchic ideas in mind at the time that they organized that company union, if it had the effect, however good it was, however useful it is in the industry, however much it would serve their interests, and even serve the employees, if it operated upon the minds of the employees, the minds and wills of the employees to get them to do something other than they wanted to do, then it is a violation of law.

If the spirit of the Wagner Bills were logically enforced, were carried out as Mr. Nebeker interpreted Section 7(a), then no man could represent workers except an outside labor union official.

Although an employer may not even suggest to his workers that they join an employee representation group, he may, according to the Wagner Bill, *compel* his workers to join a labor union. In spite of the extraordinary preference shown the labor unions, no responsibility is placed upon them. In fact, so guarded is Senator Wagner in preventing his act from being used to make labor unions responsible for their conduct that among the exceptions to the rule, the employers of labor to which the bill is not to apply, he lists 'any labor organization or anyone acting in the capacity of officer or agent of such labor organization.'

The Wagner Bill, from every point of view, would force the worker to join any labor organization which the National Labor Board would recognize

as representing the workers. And, to make doubly sure, it provides for majority rule and gives the Labor Board the right to determine whether the appropriate unit is to be 'the employer unit, craft unit, plant unit, or other unit.' A board friendly to the A. F. of L. would have exceptional latitude.

In the Wagner Bill appears the clause:—

Nothing in this Act shall be construed so as to interfere with or impede or diminish in any way the right to strike.

This provision eliminates any possibility that labor could be held to responsibility under the Act. For the law specifically provides that, if labor is dissatisfied with the administration of any of its provisions, labor may strike. But capital is precluded by provision after provision from protecting itself against the exactions of organized labor. Under the Wagner Act, capital's responsibilities are increased, labor's irresponsibility is legalized.

In the Guffey Bill to nationalize the bituminous coal industry, the spirit of the Wagner Bill appears undiluted. Part III deals with labor relations. The right of collective bargaining, as the law of the land under Section 7(a) of the NIRA, is reiterated, but specifically 'no employee and no one seeking employment shall be required as a condition of employment to join any company union.' The mere appearance of this prohibitive phrase in the Act would have the psychological effect of frightening workers into joining the United Mine Workers. If Mr. Guffey and Mr. Lewis had written the phrase thus, 'All employees must belong to the United Mine Workers,' it could have no stronger implication. In fact, further in the Act this phrase appears: the wage agreement, and so forth, 'between representatives of producers of the majority of its annual tonnage

production and representatives of the majority of the mine workers therein *belonging to a recognized national association of mine workers . . .*' There is only one *recognized national association of mine workers*: Mr. Lewis's organization. Employee representation organizations are never national, but represent the workers of only one company or one plant. By implication, they must cease to exist should this act become law.

The employer, under the Guffey Act, has nothing at all to do with the recognition of the agency of labor. The Labor Board alone determines who is the representative of labor. 'The Labor Board may order a code member [the employer] to meet the representatives of its employees for the purpose of collective bargaining. Refusal may result in heavy penalties.'

Although the Guffey Bill, like the Wagner Bill, makes the responsibilities and obligations of capital unmistakably clear, not a single word appears to state the responsibilities of labor. Not a word appears to define the character and obligations of the 'recognized national association of mine workers.' They may do as they please. They may destroy the entire industry by a strike. No one can take them to task. There is no provision to hold them responsible.

VII

Great Britain once faced this same problem which the United States is now facing. The fundamental trade-union act was passed as far back as 1871, and has been developed by acts passed in 1876, 1906, 1913, and 1927. Under the 1876 Act, provision was made for combinations of workers to organize as corporate bodies and to receive certificates of registration. Trade-unions then took on all the characteristics, responsibilities, and obligations of a

corporation. In the Taff Vale Case in 1901, the House of Lords, as a court, definitely determined that registered trade-unions could 'no longer be considered as ordinary voluntary associations; they are quasi-corporations with many of the privileges and liabilities of full corporations.'

In the Taff Vale decision it was established that a union could be sued in its registered name for damages resulting from breach of contract. This decision led to widespread agitation among workers and liberals in England and resulted in the development of the Labor Party. As a result of this agitation, the Trade Disputes Act of 1906 was passed, extending legal immunity to trade-unions. The unions could not be sued for breach of contract (arising out of a labor dispute), but the liability of trustees of a union with regard to union funds remained. This Act also defined the legal and illegal character of picketing.

In May 1926, Great Britain was shocked by the general strike involving 2,730,000 men. Every means of production and distribution was paralyzed. The nation rose in its might to break the strike. Class differences were ignored. Parliament, in 1927, passed the Trade Disputes and Trade Union Act. This act made the following provisions:—

1. General strikes are illegal and no man may be penalized for refusing to join one.
2. Intimidation is illegal and no worker should be compelled by threats to stop work.
3. No person against his will can be forced to contribute funds to a political party or trade-union.
4. Any person entering the civil service owes an undivided allegiance to the state.

The Act specifically stipulates what type of strike is illegal: namely, if it 'has any object other than or in addition to the furtherance of a trade dispute within the trade or industry in

which the strikers are engaged,' and if it is a strike designed or calculated to coerce the government either directly or by inflicting hardship upon the community. It is illegal to apply any sums in furtherance or support of such an illegal strike. The same provision applies to lockouts.

No NRA or NLB or anything of the sort is erected to enforce the act. The ordinary courts of the country and the usual law-enforcement officers are charged with its enforcement.

The provisions of this act governing political contributions are unmistakably clear. No worker can be forced to contribute, and provision is made safeguarding him from coercion or even influence in this respect. The political funds of the union must be carried separately, and no other funds of the union may be used for political purposes.

All rules and regulations of the trade-unions must be amended to conform with this provision and must be approved by the Registrar of Friendly Societies. Under the law of 1871, registered trade-unions had to make an annual report to the Registrar. This is now applied to receipts, funds, effects, and expenditures and liabilities of the political fund of unregistered unions as well. An injunction 'to restrain any application of the funds of a trade-union in contravention of the provisions of this act' may be sued. The Attorney-General (in Scotland the Lord Advocate) is particularly given this power so that the usual courts of the country may declare whether a strike is legal or not.

The importance of the British Act of 1927 which now applies is as follows:—

1. Trade-unions are fully responsible under the law.
2. Their funds are public and must be publicly reported.

3. Racketeering is impossible.
4. The corrupt use of a strike fund is impossible.
5. The usual courts of the country determine whether a strike is legal or not, and no political agency or elective official is concerned in the matter.
6. Membership in a union cannot be made an obligation for employment.
7. The relations between capital and labor are determined by the individual employer and his own workers.
8. The trade-union is recognized as a legal body and as such is protected by law, but it also assumes full obligations and responsibilities under the law.

The trade-union movement in Great Britain and Northern Ireland is stronger than is the American Federation of Labor in the United States. In 1933, it could report nearly 4,500,000 members. It enters upon collective agreements, usually dealing with wages and hours. Disputes are comparatively rare, and are usually over wages, seldom over such a question as the recognition of a union. The machinery for settling disputes is very elastic and usually a voluntary settlement is achieved. The workers and employers generally come to terms without outside intervention.

The responsibilities imposed upon trade-unions by law are in no small measure the explanation for the very high quality of labor leadership in England. Labor racketeering, I repeat, is utterly unknown. MacDonald, Henderson, Snowden, the Webbs, are not equaled in their social or political significance by any labor leader in the United States.

VIII

How much responsibility can be imposed upon labor unions in the United States without impairing the right of the worker to collective bargaining? How far can the funds of the union be made public without destroying the

usefulness of the trade-union, the company union, or any organization of workers? To what extent would incorporation or registration impair the usefulness of the union? At one time organized labor in this country favored incorporation, but after the Taff Vale decision in England the A. F. of L. adopted the permanent policy of avoiding incorporation for fear lest it be used to destroy the union by judicial action.

If the union can be sued for damages, the union can be obliterated. This fear has been the principal deterrent to incorporation. Yet it is obvious that the new setup under the NIRA, supported by such measures as the Wagner and Guffey Bills, requires fixed responsibilities on the part of labor organizations. It does not seem possible that such responsibilities can be evaded after collective bargaining has become the law of the land.

It would appear, in the interest of the community, the employer, and the worker himself:—

1. That all labor unions or associations should be required to obtain articles of incorporation from the states in which they are situated and take on the characteristics of a corporation, but that the right to strike for specific improvement in wages, hours, and so forth, should not be impaired.
2. That their rules, regulations, and by-laws should be printed and published and filed with some suitable agency of government.
3. That an annual report should be made of funds collected and expended, that this report should be filed with some suitable agency of government in printed form, and that these reports should be available for scrutiny.
4. That when trade-unions engage in interstate business they should be required to file all of the above with the Secretary of Labor and that failure to do so or to do so truthfully should be punished by law.
5. That the form of accounting should be as standardized as income-tax returns are,

and that the source of income and the character of expenditure should be broken down to sufficient detail to avoid any possible ambiguity.

If the American Federation of Labor possessed even a modicum of statesmanship, it would favor laws specifying the responsibility of labor. For it should be obvious to labor leaders that if the American worker desired to join federal unions no power on earth could keep him out of them, particularly during the past two and a half years. No one who has studied the American labor movement can deny the fact that most workers stay out of federal unions because they resent high dues, high initiation fees, union politics, union racketeering, mediocre and often gangster leadership.

Surely Mr. Green should want to clean house in the circumstance of his present advantage. It serves the A. F. of L. badly to have Tom Maloys and many of his kind still running unions.

They may be excellent organizers, but they involve the unions in a type of operation which is becoming increasingly unpalatable. For instance, Bamberger's threat to New York forced even a radical mayor, a friend of organized labor like La Guardia, to counter-threaten that he would use the police and the firemen to break the elevator operators' strike. Workers tell of great unemployment funds which are not spent on the unemployed. The fact is that the workers do not know whether the money is spent honestly or not; they know nothing about it. It is all secret — and secrecy leads, in this unhappy world, to crookedness.

The employer charges irresponsibility; the worker avoids the A. F. of L. union because he has no voice in the expenditure of funds; the public is weary of the labor racket. The assumption of responsibility would actually strengthen the labor movement.

THE BETRAYAL

BY LEANE ZUGSMITH

I

AFTERNOONS Margie sat mostly at the window, watching what was happening on Twenty-eighth Street. Sometimes she took the campstool and sat on the pavement near the doorway downstairs with whatever tenant was there. Once in a while she even played games with some of the kids. Although she had been married for nearly a year, she was n't so much past the age of the older kids. She was nineteen, a small-boned, white-skinned girl with red hair that Bill did n't want her to cut. This afternoon she was crazy to go over to the Twenty-third Street movie, but she was going to wait for Bill to come home, when the two of them could go over after supper. Bill was a hack driver who had been on the night run before they were engaged. Now he worked during the day and made good money, even though he did n't own his cab.

With half her attention on the tabloid spread before her on the wide window sill, she missed some of the happenings on the street, and not until the key turned in the lock did she realize that someone was coming into the flat.

'Say — ' she started; then she saw it was Bill. She jumped up, smiling. 'You must of hacked for a millionaire to be coming home at this hour.' She threw her arms around him and kissed his mouth. The way he kissed back made her realize there was something

funny going on. She looked up at him, her face pert and puzzled.

'We've gone out on strike, kid,' he said, and sat down without taking off his cap.

'You mean like the guys with the sandwich signs in front of places?'

He smiled without parting his lips. 'Just about.'

'Don't you hack while you're on strike?'

'No. That's what you do when a hackman strikes . . . you don't hack.'

'Well,' she said dubiously. Then her face brightened. She put her arms around him for a moment. 'It's a vacation, ain't it? We can go around during the day together. Say, it's another honeymoon.'

'Yeh, let's call it that. Only for the first couple of days I'm going to have to be kind of busy around our headquarters.'

His round good-natured face became solemn. He put his hand to his forehead and rubbed it as though he were wiping away a stain.

'You ain't worried because you won't get paid for a couple of days, are you, Bill?'

'No, kid, I was just wondering if it would come out our way.'

'Come on.' She tugged at his hand, pulling it from his forehead. 'Don't be a Gloomy Gus. To-morrow's another day, ain't it? Worry then.'

But although he smiled back at her

and although he kissed her and although he ate supper, he could n't take her to the movies that night. There was to be a big mass meeting of hackmen. He had to leave before she'd finished washing the dishes. She went alone to the movie, and when she came home she found Missis Holohan and little Loretta sitting in front with the young fellow who was now their roomer. Missis Holohan said Bill was n't home yet, so Margie was going to go up and get the campstool, only the roomer insisted that she take his chair. He sat on a newspaper at her feet. Margie had seen the roomer a couple of times before, but she had never been properly introduced to him. He was a young fellow, tall, with a graceful way of sitting and standing. His narrow blue eyes and his overlong upper lip and the way the words came from his mouth would have given him away for a Harp, even if his name had n't been Boyle.

Margie told them the plot of the movie and then she told them about Bill being on strike. Doubtfully Missis Holohan shook her head over it, just as she had shaken it earlier in the evening when she had heard the news elsewhere.

'They'll only be getting it worse,' she said with sorrow. 'I can't figure out what they want to be doing it for, excepting for the devilment that's in all of them.'

'They want more dough in their kick and better hours,' said Boyle authoritatively. 'Believe me, it's coming to them. I know. I drove a cab myself when I was working my way through college.'

Missis Holohan and little Loretta looked at him with respect; but Margie was n't going to let him snoot them about going to college.

'The college of hard knocks, I bet,' she said.

Boyle grinned. 'I got my second degree there,' he said.

'But you pinned the medals on yourself, I bet,' said Margie.

Missis Holohan and little Loretta laughed; and Boyle tilted back his head so that he could look up in Margie's face.

'I've been all around, that's a fact,' he said amiably. 'I've been a cow-puncher on the Panhandle and a hash-slinger in Chicago and a real-estate operator in Florida. I've sailed six of the seven seas.'

Margie laughed, looking down at his upturned face. 'What do you do?' she asked. 'Take it in the arm?'

'You don't believe me? I can tell you where to write and they'll tell you.' He shoved up the sleeve of his shirt and exposed his forearm that bulged surprisingly for the lean rest of him. He flicked his thin fingers against it. 'See that? That's what sailors get in Tampico — that's a Mex place.'

Missis Holohan and little Loretta peered over with Margie to see again the blue outline of the heart with the words *Semper Fidelis* tattooed within.

'What's it mean?' asked Margie.

'One of my girls,' said Boyle.

'Black or white?' said Margie.

'Kidding aside,' answered Boyle, 'it means "always faithful." That's been the motto of the Boyles for over seven hundred years, and, if you don't believe the Boyles go back that far, you can look them up in *Burke's Peerage*.'

From the radio in the Goetzes' flat came an announcement of the hour. Missis Holohan cried out sharply to little Loretta:—

'Well, if it is n't after your bedtime! I'm giddy as a goose.'

As little Loretta went into the house, Margie stood up. 'I guess it ain't right for royalty to be sitting on the pavement,' she said, almost as though she were sore at something. 'Thanks for the chair, Lord Boyle.'

'Going in already, Margie?' asked Missis Holohan.

'I ain't going to sit up all night for Bill.' And, a little more loudly than necessary, she added: 'He probably figures on sleeping late in the morning. It's going to be just like a vacation, you know, kind of a second honeymoon for us now.'

But Boyle never said a word, giving her the long stare out of his narrow blue eyes.

II

He might as well be hacking night and day, she told herself, angry now instead of tearful as she had been the first night Bill did n't show up for supper. She would n't even market for two now, and she did n't have the appetite to cook just for herself. She would munch cold stuff out of the ice chest and go down to sit before the doorway with anybody who was there, Missis Holohan or even that fresh roomer of hers. Until four nights ago she had never seen Boyle sit down there. Now he was there every night, sometimes in the afternoon, chewing the rag about all the things he had done. Sometimes when she went upstairs she had to laugh out loud at the tall tales he pulled. But he was as good as a show — better, if you had to go to the movies all alone, with your husband more interested in a bunch of men than in you.

This evening she did n't go down in a house dress the way the others did. She dressed as though she were going out somewhere and, even as she set the campstool down where the light of the street lamp would n't hit her, she pretended not to notice Boyle. Then she affected surprise. 'Hello. You here?'

When the older kids wanted her to walk to the corner with them for ice-cream cones, she went off with them, her air aggressive, as though someone had advised her not to go. Boyle was still sitting there when she came back,

stretching the long bow for the benefit of everyone around. About eleven-thirty, the tenants started going in. She was almost surprised to find herself still there, alone with the fresh guy. She'd hardly said a word to him all evening, and, for once, he was n't saying much.

The street became quiet. The radios were turned off. The cats rattling the garbage and the heavy trucks rocking by were almost the only sounds. She looked at Boyle, at last uneasy at his silence. As he opened his mouth she almost put her finger to her lips as though there were need to caution him that they could be overheard by any of the neighbors upstairs with their windows wide open.

Boyle's voice was low. 'Well, how's your second honeymoon getting along?' he said.

With a convulsive movement she reached out her hand and slapped the side of his face. 'That's none of your business,' she said furiously. The echo of the slap seemed to follow her words; and hearing it, or remembering it, she rushed into the house, forgetting even to pick up her campstool.

Upstairs in the flat, she stood in the dark with her hands over her face. Hot and bitter, the tears only tormented her further. Instead of going to bed, she sat at the window, waiting for Bill. Each time she heard footsteps and was disappointed by them, the tight choked feeling inside mounted.

When she heard Bill at the door, she ran to put her arms tight around him, and she did n't feel sore at anything any more. Bill squeezed her, too.

'You waiting up for the old man, kid?' he said fondly. Then he untwined her arms and sat down with a long tired sigh.

'I just wanted to get a look at you,' she said, her voice a little unsteady. 'You ought to wear a red rose or

something in your buttonhole so I can recognize you.'

'I know it's tough on you, Margie.' He sighed again. 'It ain't a circus for me, either.'

'Why don't you settle it up, then?' she said passionately. 'Why can't you, you know, fix it up and go back to work? You can't keep it up forever!'

'It suits me, it suits me fine,' said Bill, 'only there're a few little things we want before we go back.'

Margie walked to the window and looked down at the street; then, realizing that she was looking at the doorway, she hastily turned around.

'If it's going on, then,' she cried out, 'why can't you stay home once in a while? Ain't there anybody else can do whatever it is you're doing all the time?'

'There're others,' he said. 'There ain't enough of them. I spoke six places to-night — yeh, I'm getting to be quite the oraytor. There're others who do the same, only, as the fellow says, not enough of them.'

'What difference would one less make if you quit working yourself like a horse for them?'

'It ain't *them*, Margie, it's *us*.' He paused. 'All I can ask you, kid, is to be patient. The cops are giving us the works. That's bad enough. They're workers like ourselves, just chancing to be wearing different suits; but they don't see it that way.'

'The next thing you'll be laid up in some hospital,' she said bitterly.

'The worst of it is the scabs. Even some of our own boys have turned yellow enough to scab.' He sighed once more. 'You can't always blame them, the ones with kids and all that, but we got to try to keep them from running out.'

'Well, you got a family, too, ain't you? You got a wife. If you ain't around to be with me, there's no

telling what —' She broke off, frightened at her words. Quickly she said: 'What do you mean by a scab?'

'They're the rats that take strikers' jobs. If someone's running my cab, see, he's a scab.'

'I get it.' Margie turned back to the window and looked down at the street. A truck lumbered past before she said, without turning, 'Say, did you happen to see the campstool downstairs? I forgot and left it.'

III

The next evening Margie sat before the doorway, talking to Pearl Rosen as she nursed her newest. When Pearl took the baby in to put it to bed, Margie was left alone. She kept thinking of last night and how lively it had been, but, after smacking him, she could n't blame him for not showing up. Just as she had decided to go up and sit at her own window, Boyle came along, tall and graceful and cool as a cucumber. He stood right in front of her.

'I've been waiting at the corner for the mamma to go inside,' he said.

'I did n't see you there,' said Margie in a high little voice.

He leaned toward her, pitching his voice low. 'If any other broad did to me what you did, they'd have been counting a hundred before she got up.' He dropped his tabloid on the pavement and sat beside her.

'I did n't mean to do it.' Margie spoke stiffly. 'I got a quick temper.'

'I know why you did it,' he said softly, giving her a long look.

'No, you don't. I did it because I ain't having anyone rib Bill.'

'Who was ribbing Bill?' The surprise in his voice was manifestly artificial. 'I'd like to meet him. I think Bill and I would get along swell.'

'Oh, you do, do you? What makes you think you're Bill's type?'

'I think we got something in common.'

'Sure, you live in the same house.'

'You,' he said between his teeth.

She did n't want to stop him from talking that way; she felt as though she could sit there, holding his stare, for hours. But she spoke. 'If Bill heard you talk that way, it'd be you they'd count a hundred for.'

'Think so? I used to be a boxer. I can take on Bill any time. Maybe that's what it's coming to.'

'You were everything, weren't you?' she said, trying to make her tones sarcastic.

'You don't believe me? Look at my ear.'

She leaned over. She had not noticed before that it was misshapen, it was so small and set so close to his head.

'Touch it, cupcake,' he said. 'It won't bite.'

Slowly she put out her finger and touched his ear, and when he shivered it was as though she had known he would shiver. Slowly she withdrew her finger.

'Don't do that again,' he said in an odd voice.

'I guess you did n't ask me to,' she said, and her voice matched his own.

Boyle dug his hand into his coat pocket. 'Come in the hall a minute; I got something to show you.'

She followed him in, to the dark place beneath the stairs where the older kids necked with their boy friends. And when he put his arms around her and pulled her close to him she shut her eyes and forgot to worry about someone coming down the stairs or to remember Bill.

After that, Boyle kept begging her to let him into the flat; but she drew the line at that. Neither would she go walking with him or to the movies. It was bad enough to let him kiss her, but she was n't going to have the neighbors thinking things and pitying

Bill for something that had n't happened.

'Can't you quit talking about Bill?' he would say. 'We only got a little while together. The strike will be over, and then you won't let me see you any more.'

'That's right. I won't,' she would answer defiantly, as though the strong indifferent words could cancel the loss of him.

'You would n't have the guts to run off with me.'

'That ain't guts, when it's Bill I love.' But at night, when Bill came home from his meetings and his rallies, she pretended to be asleep so as not to talk to him with her head full of Boyle.

'I would n't want to hurt anyone you care for, cupcake,' he'd say. 'You stay with Bill now. Some day you'll come to me.'

'Where? In Siam, where you'll be emperor or something?'

'Wherever I am, you'll always know. There won't be a week of your life you won't hear from me. Maybe it'll only be a postcard or a telegram, giving my address.'

'That'll be nice for Bill.'

'You'll know who they're from without my name. I'll sign them *Semper Fidelis*, always faithful. And whenever you decide, I'll be waiting for you.'

There was Boyle, always faithful, with his long blue eyes, willing to wait around just to catch sight of her; and her own husband coming home later each night, either too tired to talk or hashing over stuff she could n't understand. The strike was ten days old. She was beginning to wonder where the rent money would come from — not that she was worried.

That was the evening, after the others had gone upstairs, she told Boyle she'd spend the next day with him. She put it on a playful basis: they'd go to Coney — she had n't had

a swim for a long time — and get some sun. Even when he held her in his arms and she was dizzy with his kisses, in the dark part of the hallway, she told herself that she was only going because she wanted some fun. Bill would have taken her on his day off if things were different. It was just going to Coney with Bill's substitute.

But, lying awake in bed that night, she knew from the sorrowful tremulous feeling inside her that it was more than taking an excursion, that she did n't know what might happen; that she did n't care, or did care — in the wrong way, Boyle's way. When Bill came home, she pretended to be asleep; and when he lay beside her she had to restrain herself from weeping. It might be the last time she'd even be in the flat, the last time she'd see Bill. Sad and uncertain and excited, she fell asleep as it became light.

They were to meet at the B. M. T. station on Twenty-third, so that none of the neighbors could see them go off together. On the way over she bought herself a new pair of white shoes, not caring that it left her only fifty cents. She preened herself in the reflection of a plate-glass shop window, pleased with her nice fresh dress and the way her red hair curled out from the saucy hat. Then, holding her head high so that no one could guess that her nerves were on edge, she took her stand on the corner. As she had planned, she was ten minutes late.

Presently she began to feel funny, stuck there with everyone looking at her as though she'd been stood up. She started sauntering past stores and looking into their windows, turning her head now and then toward the corner. When she came upon a clock, she saw that it was thirty minutes past the appointed hour. She hurried back to the corner. This time she stayed there, forgetting to be self-conscious, as she prodded her mem-

ory for the exact words Boyle and she had exchanged. It certainly had been the Twenty-third Street B. M. T.; she could have sworn it was. She went down the subway stairs. She came back. Maybe something had happened. Maybe he was back at the house right now, standing in front, waiting for her. She looked up at the Metropolitan Tower clock. It was three quarters of an hour past the time. Now she was certain he was at the house. The thing to do was to hurry back, but she would n't take a street car across Twenty-third because maybe it was only something that had made him late and he'd be coming east on Twenty-third himself.

Just as she was waiting for the red light to get her across Sixth Avenue, she saw him. Sitting there, big as life he was, behind the wheel of a slowly cruising taxicab. For a moment his narrow blue eyes beneath the cap visor met hers. They shifted away almost in the same moment.

With her heart pumping so that it seemed to shake her entire body, she stamped her foot. 'Scab!' she shouted in a loud violent voice. 'Scab! Dirty rotten scab!' She never knew what she picked up from the gutter to throw at him. The missile did not touch him; he had already stepped on the gas and was far up Sixth.

She did n't care what the people thought of her. All the way home, almost running, she muttered: 'Scab — dirty rotten scab.'

When she got to the house, she went right up to Missis Holohan's flat.

'You know what that roomer of yours is?' she shouted. 'He's a scab! You should n't let a rat like that in this house. Dirty, dirty scab!'

Missis Holohan was distressed. But when she tried to talk it over, Margie banged out of the flat and into her own. There she threw herself on the bed, never thinking of her nice fresh

dress, and began to cry, furiously at first, thumping her fists against the mattress, pathetically and wearily afterward. Presently she fell asleep.

She had been asleep for nearly three hours when the door opened. It woke her and she ran out, eyes red, hair disheveled. It was Bill.

'Oh, Bill,' she cried, 'I must be a sight! I got so sore, finding out that Boyle is a scab.'

'Boyle?' said Bill.

'Missis Holohan's roomer. I saw him on the street, and I got so mad I yelled it at him at the top of my voice, and I threw something at him, too. "Dirty rotten scab!" I yelled, and I did n't care who heard me.' She came up to him and nestled her head against his shoulder. 'You did n't think I cared much about what you were fighting for; but now you know.'

'Sure I did, kid.' He patted her arm. 'I thought you'd be on your old man's side, whatever it was.'

'I'll go out and shout it at every one of them and throw things at them, too! I told Missis Holohan she should n't let him stay there.' Her eyes flashed.

'That's the spirit, Margie. Only it's all over now. It was arbitrated half an hour ago. We go back on the job.'

'You do? Say, all of you must be glad!' She was gladder, she thought. Everything would go back

to where it had been. Having it settled at this minute could n't be better. It wiped out everything, even the — She closed her mind against this thrust of memory. 'Let's celebrate, Bill. I'll get some beer. It's cold.'

She ran out to the kitchen and threw cold water over her face before taking the bottles from the ice chest. When she came back with the beer, she saw that Bill was sitting in her chair by the window, his head down on his crossed arms, his shoulders bowed in the most desolate way.

Her hands and feet seemed as chill as the bottles. He knew. Someone had told him lies. Some snoop old gossip had told him. She put down the things in her hands and ran toward him.

'There was n't a thing to it, Bill.' She pressed against his mournful shoulders. 'I could n't see him for the dust. It was just that I did n't know what to do with myself. We kidded around, honest to God, Bill —' She halted, afraid of what she might see as he slowly turned around his tired, despairing face. There were tears in his eyes, and for a moment he was unable to make sounds with his working lips.

'They sold us out, kid,' he said at last, heavily. 'I can't help feeling this way. They sold us out.' He put his head back on his arms.

DESIGN FOR DARKNESS

BY KENNETH HORAN

If there had been any particular cause, such as a severe illness or an accident, my loss of sight would not have been such a direct blow of fate. There are plenty of stories of heroic acceptance of approaching blindness, especially among people who will always have the comfort of writing as a vocation and as an avocation, — Milton and Prescott were both prolific without their sight, — but it came to me like a sudden plunge into a deep, dark abyss and has caused a similar loss of footing. The course of events has been as orderly as the acts in a well-constructed play: a cold in the face that involved the optic nerve, a sudden blindness of one eye, the sympathetic weakness of the other eye; a kindly oculist with his dictum that in six months the scars on the cornea might heal, if given complete rest. And there I am, robbed of my work, my profession, my great joy in life! Like Orpheus crying for Eurydice, I mourn not for a lost love, but for a lost vision.

From four to ten books a week has been my reading rations for a good many years. They come to my door in a continuous stream, to be piled on the desk, perused, and docketed. Literally they have made a world for me. And in this world, indifferent to outdoor life, to society, to domestic activities, books and the people who write them have made a perfect circle. Outside it I have not cared to step.

If there is such a thing as punishment

for those who view life in the wrong perspective, if there is a justice which evens up deficiencies, here is an example of its working! After all the happy and exciting years of reading voraciously, and writing with equal enthusiasm, I am bereft. The world stretches before me a dreary place with most of its activities closed for me. And, worst of all hardships, I must look at things not with a view to seeing them clearly, but with a view to saving my eyes, being careful of too strong a light, of sudden heat or cold, of any of the natural phenomena, in fact, that we take for granted. The life of external interests is definitely closed, its most engrossing occupations put in the discard. How, then, does one adjust oneself to such a change?

I look back into the past, and see that a book has not meant to me something to be delicately savored, but has been a glorious adventure to be accepted or neglected, its possibilities analyzed as a chemist analyzes a liquid. My object in reading has not been to pass the time, but rather to discover the exact status of a writer and his work. My only disappointment in this has been when I have met mediocrity.

Anyone who has that ineffable joy in life, a taste for reading, will know my state of mind when, like a man marooned on a desert island, I await the return of the rescue ship. I think of my friends, — critics, authors, librarians, — a host of finely prejudiced men and

women whose scheme of life is built on books, and wonder what their reactions would be to the terrible deprivation that a loss of sight involves. I wonder, in fact, whether I shall be able to retain my reason in case this loss is ultimate. I wonder a hundred different things, all of them induced by terror, fright, and despair. I feel like a haunted character in one of O'Neill's plays, seeking through eternity for that faculty which I most need.

Suddenly, in the midst of my recognition of possible blindness, an undreamed-of peace descends upon me, a feeling of a new life that is outside the life of the senses. For the nearness of the trees, I have not been able to see the forest. It is strange that there should be a myopic point of view when the love of an art is the basis of its cultivation. But just as a child assumes greater importance in the eyes of his parents than a stranger understands, so a beloved vocation becomes the spoiled and petted infant of the imagination. After all, it is the personality behind a book which makes the content and the style of a book. Why not, then, find the same happiness in people as in their stories? Amazing thought! I set about cultivating my friends, and I discover lovable, comical, hateful qualities in persons who had always seemed quite commonplace. Not just the Dickens characters appeal to me, but I pigeonhole men and women as Margaret Ayer Barnes, or Pearl Buck, or Ruth Suckow, or Josephine Herbst, or Virginia Woolf, or Vera Brittain has seen them. And I suddenly discover how comprehensive the types are which these modern writers have given us. For the first time in my life my family, my friends, and my enemies become as interesting as my library.

'Work with your hands,' the doctor said. And suddenly there is an unsuspected pleasure to be derived from plain and homely household duties

which have seemed completely drab heretofore. The routine of a home can be a fascinating performance. I no longer take for granted the multifarious duties that crowd down on my small household, but take part in some of their performance, dim though that part may be. Strange that I had never realized the joy that comes with the performance of a manual task, if it be done with leisure, savoring to the fullest its place in the scheme of domestic arrangements! I look at my hands — I see them only in outline — and I direct them to linger over linen shelves and to rearrange closets and to wash china. Things feel good in my hands, and I try to remember whether such a wellspring of joy ever arose in me before; and suddenly I recognize this feeling of happiness as the same warm glow I have experienced on discovering the work, say, of some new poet, or a promising first novel, or maybe a biography that gives a new slant on a character. The memory of these tasks well done lingers with me throughout the day. I have lost my eyes, but I have found my hands.

Outside, the world seems dim and hazy, because I have always looked fearlessly on its sun-flecked or snow-covered roads; and I wonder, as I traverse the barely discernible streets, whether walking is going to be the fun it used to be. And suddenly I feel a cold rush of air on my face, and, as I turn the corner, a softer breath, and I realize that never before have I known the winds. I've thought of winds as they tore leaves from trees or whistled down the chimney; I've felt them as I've fought off cold or sweated beneath heat. But the varying degrees of a wind as it plays about my head I have never known before. It's fun to walk now with the wind for company, feeling first its chill and then its warmth, and the streets of my little town become like the moors in a Hardy novel.

And my dogs, who seem to know that something strange and unforeseen has happened to me, cling close to my side. The big fellow bounds off into the snow for a moment and hurries back to see if all goes well, and the little one, that stalwart Scotchman whose mind is always on squirrels and the joyous possibilities of catching them, trots along ahead of me, eyes front. He has decided to be my guide, and, with thrifty Scotch precision, takes no more steps with his short legs than are necessary. The German mastiff, on the other hand, is my protector, and he circles about me sniffing the air with a nose that is alive for possible enemies. It is pleasant, they both seem to say, that she has decided on these morning and afternoon walks; better see to it that nothing happens to her.

There are sounds in the air, all about us, that I have never heard before. Not only the occasional notes of squirrels and sparrows that fill the winter scene, but strange soft noises that come from trees and bushes and even houses. In the night the creakings of the branches of the trees and the responses of the softly settling house are my companions, as I lie thinking of the hundreds and hundreds of books I have read while lying there with the soft rays of my night light coming over my shoulder. A squirrel scampers across the window ledge, a water spout creaks with its burden of snow or ice, trees groan gently and companionably, and in the distance a dog barks. Cars speed by on the boulevard, but their sounds I do not hear, for I have always heard them. It is the overtones that come to

my ears, soft murmurs of mingled voices, the silky rustling of tree tops, the distant low hum of the great city that lies miles away. Maybe that strange whirring which is so close at hand is my garden awakening to life. And I remember that in a few weeks spring will be here, and it comes to me with a start that never before have I cared for my garden, because I always let someone else do the pruning and the planting. Now my garden must be to me as books once were, something to investigate and learn from its original sources. Beverley Nichols and Cecil Roberts found the joy of growing things in the midst of other activities, so why not I?

I listen once more to the stirrings of the earth, and I feel myself a part of the rhythm of a life which I have never known before. I sink deep into its gentle, pulsing melody. And I know that, as I am part of the earth, so also am I part of the stars in their infinite circuits of light — did I not read some new Jeans book just before this blackness descended upon me? The depths and the heights of living are clear to me, who cannot see, for I am no longer diverted by quick impressions outside me. I live now on those gentle, low, insistent sounds that come from undreamed-of places. And suddenly out of my blindness I realize that for the first time in my life I really see.

A sight that is not of the eyes has been given me, and in my need and despair there is a comfort unsuspected in that other life. Can this be the faint beginnings of confident faith, and shall the Unseen one day be seen?

GEORGE V AND THE BRITISH CROWN

BY ANDRÉ MAUROIS

'Knowing the difficulties of a limited monarch, I thank Heaven I am spared being an absolute one.'

— King George to Walter Hines Page

'I am not much on kings, but if you must have a king, give me George.'

— Familiar conversation of Walter Hines Page

IN May of this year the British Empire will celebrate the twenty-fifth anniversary of the accession of King George V. He came to the throne on the death of his father, Edward VII, on May 6, 1910. His grandmother, Queen Victoria, had become the sovereign of the United Kingdom in 1837. Together, then, grandmother, father, and son have reigned almost a century.

Now this century has witnessed the fall of most of the world's thrones. It has seen republics substituted for monarchies in France, in Spain, and in Portugal, and dictatorships take the place of empires in Germany and in Russia. It has seen the separation of the countries which for so long were united under the sceptre of the ancient Hapsburg dynasty. But the same century has seen the British monarchy become more firmly established. The British Crown appears to the historian much stronger in 1935 than it did in 1835, or even in 1875, a time when many Englishmen, among them Joseph Chamberlain, openly called themselves Republicans. One could wonder very seriously in the nineteenth century whether the son of Queen Victoria would actually reign; it would be rather surprising to-day for an Englishman to entertain doubts that the children

of King George will enjoy their royal heritage.

Loyalty to the monarchy in England is not a question of party. The Laborite feels it equally with the Conservative. In 1928, at the moment when King George was so gravely ill, Mr. Ramsay MacDonald came to Paris to address a group of French Deputies, for the most part Socialists, on the policies of the Labor Party. As he rose to speak he said: 'Gentlemen, before taking up our subject I think it will seem fitting to all of you if we pause in silence and pray to God for the recovery of our King, who at this very moment is fighting against death.' Many among those present were taken by surprise. They would not have been had they known England. There affection for the royal family is perhaps even stronger among the masses of the people than among the nobility. Bernard Shaw, in one of his dramatic prophecies, has imagined an England gone Communist in which the King still remains the most popular of men. It is not an impossible hypothesis.

It is interesting to inquire what permanent qualities and what special circumstances have worked together to preserve the British monarchy. What is the place of the King in the British

system of government? What services does he render? Before examining the personal reign of George V, let us try to answer these general questions.

I

Like most great human institutions, Constitutional Monarchy did not come into being as a result of the conscious reasoning of men. Because George I, the King who came from Hanover, did not speak English, the King gave up presiding over the Cabinet of his Ministers as early as the eighteenth century, and thus, without conflict, there came about a first division of the executive power. Because Queen Victoria was a woman, devotion to the Crown has become a chivalrous sentiment. Because she married Prince Albert of Saxe-Coburg, who possessed all the family virtues, the royal family has become for a religious people an object of affection, and even of tenderness. Because three successive sovereigns — Victoria, Edward VII, and George V — were reasonable, moderate, and capable of playing the rôle of impartial arbiter, the usefulness of the monarch has become universally apparent. A sovereign who, in the nineteenth century, had attempted to rule as an absolute monarch would speedily have made England a republic. But the family of the Coburgs, in England as in Belgium, understood to perfection the delicate mechanism of constitutional monarchy.

What is this mechanism? The mainspring is that the King, in order to remain a neutral umpire, must never assume responsibility for an act of government. This power belongs to the majority in the House of Commons, and is exercised by the Cabinet. The King must accept the recommendations of the Prime Minister. 'He must sign his own death warrant,' says Bagehot, 'if it is presented to him after

a vote of the two Houses.' Mr. Asquith wrote in a celebrated memorandum: 'The Crown must act according to the advice of the Ministers who at a given moment possess the confidence of the House of Commons, whether or not this advice agrees with the personal judgment of the sovereign. The Ministers will always listen with the most profound respect to all the criticisms or objections of the monarch and will examine them with the most serious attention, but the final decision remains with the Cabinet, since it is the Cabinet and not the Crown which is responsible to Parliament. It is only by adhering scrupulously to this doctrine that it is possible to keep the Crown above the storm and stress of political battles.'

In return, it is an unpardonable fault for a Minister to compromise the King. Not only must he refrain from quoting publicly the words of the King, not only must he never try to enroll the King in a party, but the duty of the Prime Minister is to assume entire responsibility for his acts and never to take shelter behind the throne.

What, then, are the functions of the King? As Bagehot says, he retains three rights: to be consulted, to encourage, to warn — and a sensible King will not wish for more. Nothing can be done in the realm without the King's being informed of it, and English sovereigns have, with reason, demanded that this prerogative remain intact. Thanks to information received from his Ministers, and which he can, in grave circumstances, supplement by listening to (but not asking advice from) the leaders of the Opposition, the King is always put in a position to pass judgment as an impartial observer. But he cannot prevent things being done. 'Mark my word,' he says to the Prime Minister, 'you are embarking on a dangerous course. I remember this or that distressing precedent. Of course, it is you who are

responsible, and if you insist I shall sign. But I warn you, you are making a mistake.'

Such opinions are received with great respect, first because the prestige of the sovereign is immense, and then because, through the permanence of his office, the King soon acquires a larger experience than that of most of his Ministers. To explain this rôle of the King, Sir Maurice Amos employs an excellent analogy. 'Suppose,' he says, 'that the nation were a joint-stock company. Its affairs are carried on by an Administrative Council, which is Parliament. The King is the original proprietor of the business, and he remains president of the Administrative Council. Having given over almost all active participation in the management, he no longer has the right to vote, but he is still the most respected of advisers. Everything is done in his name.'

And what advantage, one may ask, is there in retaining the original proprietor in this capacity? The advantages are many. The indubitable success of constitutional monarchy as it is found in England and in Belgium rests, in the last analysis, on four facts:—

1. It makes for intelligent government. The masses have a natural and inevitable tendency to put their faith in a man. A legislature or a party appeals to ideas which are too abstract. Even in democracies public opinion centres about an individual. For the average American, the New Deal is Roosevelt; in the eyes of the entire world, Fascism is Mussolini. The same thing is even more true among primitive people. During the war, when I was a liaison officer between the French and British armies, there were serving on the British front Kafir chieftains who had come from Africa with thousands of their native soldiers; I saw these chieftains refuse to renew their contract except in the presence of the King. At the mo-

ment King George happened to be at Abbéville, and advantage was taken of this circumstance to lead the chieftains before him.

2. The activities of the royal family, followed with interest by the people, operate to put sovereignty on the same level with the private life of each subject. A royal marriage is a great national event because, for most men and women, a marriage is more interesting than a decree of state. If the marriage is romantic, if the princess possesses great beauty, as was the case with Queen Alexandra, the Duchess of York, and Princess Marina, a sentimental intoxication, inoffensive and healthy, takes possession of the crowds. Superannuated virgins and nondescript men then live, by proxy, the most beautiful of romances. It was in the same fashion that most religions were built about holy families.

3. The royal family, consecrated by hoary tradition and held by the rules to a precise order of succession, finds itself lifted above the basest of passions—jealousy and spite. Legitimacy is the fountainhead of serenity among rulers and of respect among nations.

4. Finally, a royal family, if it knows how to play its part, makes itself, for the entire society of its country, a social and moral centre. It preserves customs and acts as a check upon a too rapid change in manners. In this field the royal house of England functions to perfection.

II

Such, in general, is the rôle of a constitutional monarch. In England the King must also, in certain well-defined circumstances, take an active part in affairs of state.

In principle, the King chooses the Prime Minister. As a matter of fact, when the majority of the House of Commons consists of a single party, the leader of the party automatically be-

comes Prime Minister, and the King cannot put him aside for another. Queen Victoria, who had no love for Mr. Gladstone, tried in vain to give preferment to some of his subordinates. Naturally her overtures met with refusals, and in the end Gladstone headed the Cabinet. But in certain instances some measure of choice is possible. When a large party splits up into factions, when the nominal leader of the party no longer commands the support of the majority, the King is able, not to impose his own will, but to guide the hesitant wishes of the factions. That is what happened when Mr. Bonar Law, in 1923, was compelled by illness to resign. Lord Curzon was convinced that the new Prime Minister could be none other than himself; Mr. Balfour and other Conservative leaders indicated to the King that Lord Curzon's character did not seem to them compatible with the post; in consequence, it was Mr. Baldwin and not the nominal head of the party who was summoned to Buckingham Palace. The King had cut the knot.

In theory the King has the sole right to dissolve Parliament. In fact, he cannot do so except on the advice of the Prime Minister, but here too circumstances sometimes make the problem more complex. If there are three parties in Parliament instead of two, it may happen that the party of the Prime Minister represents a minority of the House; he might ask for a dissolution at a moment when the other two parties were prepared to join forces and take over the government. In such circumstances the King would have the last word.

The King has the sole right to create peers. This gives him the power, limited though it is, to propose or to refuse certain names each year when the Honors List is prepared. The chief value of this right lies in the fact that the Government must appeal to the

King whenever the House of Lords opposes the will of a liberal House of Commons. On occasion, in order to force the Lords to approve the budget, the Government has had to threaten them with the creation of new peers, enough to change the majority in the upper House. To make good this threat the Prime Minister must obtain the assent of the King. This raises an extremely awkward problem for a sovereign who, on the one hand, considers himself the natural head of his nobles, and who, on the other hand, wishes to act in a strictly constitutional manner. We shall shortly see how George V, faced with just such a crisis, conducted himself with both dignity and honor.

Finally, when the need arises, the King has the prerogative — very little understood because its use, though often effective, is almost always secret — of acting as a mediator between the political parties whenever their conflicts grow so bitter as to endanger the nation itself. King Edward, at the beginning of hostilities between the Lords and the Commons, did not hesitate to summon to Balmoral Castle both the Prime Minister, Mr. Asquith, and the leaders of the Opposition, Mr. Balfour and Lord Lansdowne; and he calmed their passions.

One sees, then, that the functions of the sovereign remain important and complex. He does not have the authority of the President of the United States, who is not only the head of the state, but also its active Chief Executive; on the other hand, the King of England has rather more power than the President of the French Republic, who can dissolve Parliament only with the consent of the Senate and who lacks the right to create new Senators. Add to that the immense prestige of the King, which allows him to intervene in certain questions of foreign affairs and in matters concerning the army, of

which he is the head, and one will see that the sovereign plays a truly large rôle in the government of England.

Let us now try to find out how these royal functions have been exercised during the twenty-five years of King George's reign.

III

George V was the second son of Edward VII, and did not become the heir to the throne until the death of his brother, the Duke of Clarence. He had been educated for a career in the navy, had lived most of his life away from the Court, and had been in personal command of a torpedo boat, then of a cruiser. Simple and unaffected, but with great natural dignity, he made the best possible impression on his Prime Minister at the time of his accession in 1910; Mr. Asquith returned from that interview 'profoundly moved by the modesty and good sense' of the new sovereign.

He inherited a difficult situation. In the foreign field, it was the period of naval rivalry between England and Germany. King George, unlike his father, did not look upon the Kaiser as his personal enemy, and for a time it was hoped that these 'family' relations would run more smoothly. The hope was speedily dashed. At home, the issue between the Lords and the Commons had reached the stage of sharp conflict. The Liberals, who had been in power since 1906, had pursued a double objective: to force acceptance of Lloyd George's budget, and to modify the Constitution so as to deprive the Lords of their veto power over the Commons. The House of Lords had yielded on the first point, after a general election. The only way to make it yield on the second was to threaten it with the creation of three hundred new peers, and Edward VII had promised Mr. Asquith that he would consent to this, if need be, after another election.

The death of King Edward presented Mr. Asquith with a serious problem calling for tact and resourcefulness. The Prime Minister did not think it fitting to ask the new King to make painful decisions at the very beginning of his reign and during a period of mourning. In that we have an excellent example of the moderating influence of the Crown and of the process by which it 'humanizes' political warfare. Since the Opposition shared the same loyal sentiments, an effort was made to bring the leaders of the two parties together to see if they could not reach an agreement. But this conference, after long arguments, failed.

It now became necessary to find out whether King George would repeat his father's pledge to the Prime Minister and promise the support of the Crown in creating new peers, in case the election to be held on this issue returned the Liberals to power. Was any other solution possible? If the King refused, the Cabinet would resign. If the King called on Mr. Balfour to form a Cabinet, the House of Commons would vote it out of office. Strictly speaking, the King might then grant the Conservatives a dissolution of Parliament, but to do so would be to involve the Crown in the election campaign and thus destroy the very principles of the monarchy. That was what Mr. Asquith wanted above all to avoid. Now if he went into the election armed with a secret promise from the King, the King's position seemed safe. 'If I am beaten,' said Mr. Asquith, 'the promise will remain inoperative; if we have a majority, the Lords will yield, so that in any event the name of the King will not be mentioned.'

In spite of his dislike of this method, King George was wise enough to understand that there was no other. It was agreed that the royal promise would be closely guarded, and that the most determined efforts would be made

by the Ministers to keep the King's name out of the election campaign. When the election was over and the Liberals had been returned to power, the King insisted that his promise be made public. He was afraid of being placed in a false position if the pledge he had given to the Prime Minister was withheld any longer from the leaders of the Opposition.

The revelation was made, therefore, in a letter from Mr. Asquith to Mr. Balfour and Lord Lansdowne. The Opposition was indignant, but realized its helplessness. The creation of three hundred peers would be a lasting disgrace to British institutions and would undermine the prestige of the aristocracy. It would be better to yield the point without a struggle, and the Lords themselves passed the law which took away their veto power. The King emerged from this bitter struggle with his prestige not only intact but enhanced, for he had never deviated by a hair from his rôle as arbiter. For the Government he had been an adviser, a moderator, but not an obstacle; for the Opposition a friend, but not an ally.

The reign of George V was destined to be difficult. The problem of the House of Lords was hardly settled when the Irish question came to a head. Mr. Asquith, in order to obtain his majority in the House, had been forced into an alliance with the Irish Nationalists and had promised them Home Rule, which meant the virtual independence of Ireland. The Protestants of Ulster swore that they would never, under any circumstances, submit to being governed by Dublin. They demanded that they be left out of the Irish state. The Nationalists, on their side, trembled at the thought of losing the richest part of Ireland, the section on whose revenues they hoped to grow fat, and declared the Ulster proposal absurd and impracticable.

Mr. Balfour suggested that the King

should intervene and proclaim that such a dismemberment of the Empire was a subject on which the country ought to be allowed to speak its mind in no uncertain terms. In other words, Mr. Balfour wanted the King to force upon Mr. Asquith a new dissolution of Parliament. Lord Rosebery, on the other hand, thought that for the sovereign to refuse his assent to a law voted by Parliament would be an abuse of power contrary to all principles and traditions. Throughout the winter of 1913-1914 the question was hotly debated. Self-appointed advisers drew up proclamations as models of the kind which, they said, the King ought to address to his people to prevent civil war. Some urged him to call for a referendum, others to refuse the royal signature, still others to dismiss the Cabinet.

King George was wise enough to turn a deaf ear to all of them. He remained calm, but he repeatedly reminded his Ministers that the situation was more serious for him, who, no matter what happened, would have to remain head of the nation, than for them, who, if public opinion shifted, would simply yield their places to others. Month after month he persisted in his effort to lead the irreconcilables to reason, requesting each of them in turn to temper his language and to take into account the difficulties of the other side. Inviting representatives of the opposing parties to Balmoral, he arranged to have Lord Crewe (Liberal) play golf with Mr. Bonar Law, the new Conservative leader. On this grassy and neutral ground Mr. Bonar Law became more tractable. At the King's insistence, Asquith and Bonar Law met in conference — secretly, for their partisans would have censured them — and found each other more reasonable than either had imagined.

In March 1914, the Ulster Volunteers threatened to settle the question by force, and many officers of the regu-

lar army went on record as saying that they would not fight against loyal Englishmen to uphold the Irish Nationalists. Sir Arthur Paget, commander in chief in Ireland, instead of taking it for granted that his officers would obey any order issued by their superiors, authorized those of them who were in Ulster to take a leave of absence so that they could escape this moral conflict. Discipline was dangerously undermined; there was talk that the heads of the army were going to resign. The situation was extremely grave, with civil war becoming more and more likely every day.

Once more King George intervened; he called a conference of the conflicting parties at Buckingham Palace, under the royal roof. He himself opened the deliberations with a moving speech. But passions were too inflamed, and the conference ended in failure on July 24. Already the murder of Sarajevo had shifted the points of Europe's destiny toward other battles, even more tragic. Thus the World War headed off civil war in Ireland.

IV

On August 1, 1914, the King of England addressed an appeal to the Tsar asking him to halt the mobilization of Russian troops. This appeal had been drawn up by Asquith, with the help of officials at the Foreign Office. 'When we had finished,' said Asquith, 'I called a taxi and, with Tyrrell, at one-thirty in the morning, had myself driven to Buckingham Palace. The King was summoned from his bed, and it is one of my strangest memories thus to have found myself before the King in his dressing gown, to whom I read the message.'

During the war the King insisted that the dietary schedule of the royal family be the same as that of the English masses. As soon as it was necessary

to put the population on short rations, Buckingham Palace drew no more than the common food allowance; wine and even beer were banished from the King's table. Several times King George went to France to review the troops and to see his son, the Prince of Wales, who was serving as an officer. At the close of the war Asquith paid his respects to the King in these words: 'With thrones falling all around us, some founded upon injustice, others propped up by the fragile framework of conventions, the throne of this country remains unshaken, resting as it so largely does upon the will of the English people.'

Since the war new difficulties have arisen. The general strike and the victories of the Labor Party required the sovereign to demonstrate afresh his capacities as an impartial arbiter. He acquitted himself so well in these tasks that when, in 1928, he was gravely ill, the anxious crowds that stood watch at the gates of his palace outdid in affectionate solicitude those which in similar crises had gathered about his ancestors and predecessors.

George V has been and still is the most respected of arbiters. The Frenchmen who saw him preside at the London Conference were struck by his simple dignity and his authority. 'He spoke only a few words,' one of them said to me, 'but they were uttered with inimitable grace and majesty.' At Christmas 1934, a royal message delivered over the radio joined all the peoples of the Empire in a common sentiment. Only yesterday the leader of the most advanced wing of the Labor Party, Sir Stafford Cripps, declared that constitutional monarchy is destined for many long years to remain the best method for providing the head of the state. The jubilee of 1935 will be celebrated with one voice by a united people.

A NOVEMBER SPRING

BY GLANVILLE SMITH

JUDGING by what I hear, the Three Fates are very imperturbable old ladies. But perhaps they are feeling a little huffy at present: I have worked into the years of my life one more spring than they intended. 'What impudence!' I can hear them cry, slamming down the shears among the snippets and frazzles of wrecked lives on which their grim old feet are planted. And one adds sourly, 'The young whippersnapper has stolen a March on us, my sisters!'

But it is no March, but a May that I have stolen from under their wrinkled noses. South of 'the Line,' November is May. Nor were my intentions impudent. When the *Mariposa* lay tugging at her hawsers in Suva Harbor, ready to sail, not back to bleak November, but ahead still southward to a November spring, it was only common sense to climb aboard, and resign myself to the bliss of an American bed and the rapture of American grapefruit at breakfast again, on that short voyage. Nor can I be blamed, I think, for disembarking when she touched at a springtime land where the brooks wind among banks of calla lilies, black swans ride on lakes of silver, and caves are lit obligingly by glowworms.

A snap of the thumb for the Fates, and here's another for their arbitrary plan of destiny. The primroses of March, the daffodils of April, have withered and gone, the last of the apple

blossoms drop from the bough; it is May and rose time in New Zealand, even if the calendar does read November.

Yes, it is spring. Here at Manapouri, where clipped lawns and hedges and orderly gardens in the style of Twickenham have been established in the bush fifty miles from the nearest town, and the sheep roam some thousands of unmapped acres, the old spring urge to *dig* has seized me. My hostess, ready to humor so innocent a whim, put a fork in my hand and set me to work in the marrow patch. The worms I have turned up there are of the true spring fatness. Spring it is, the spring of 19 — Blink it! What is the year anyhow, on these far-away islands?

The question is more baffling than you would guess.

I

Obviously the place is Great Britain. The beefsteak-and-kidney pies, the skylarks, the policemen's helmets, are unmistakable. The rivers, it is true, are rather unruly, the mountains are very peremptory, but it is Britain all the same. The date, however, is a study.

In some ways it seems to be the Britain of the future, where inequalities have been ironed out by long adjustment and sacrifice. The only department of life in which excitement is permitted is sport. There are no ultra-rich, offensively living in palaces; there is no one too poor to risk

something on the horses. Nobody ever is killed in a railway accident. The newspapers are handsome in looks, gentlemanly in policy, most perfect in morality: oh, happy land, nourished on such blameless journalism! The school children are in uniform, strictly; no thought need be squandered on little Marjory's wardrobe — it has long been established, as has also the menu for each of every day's six meals. There is no agony of creative endeavor; nature and the Botanical Gardens are full of wonder, and the past has heaped up more masterpieces already than the longest life can enjoy. Among the violent ups and downs of their terrain, and the tortuous ins and outs of their coast line, the New Zealanders have achieved a society as level and as safely circular as a pancake.

But wait. There is unemployment in this Utopia. Woolgrowers, disgusted at what the buyers of Germany, France, Bradford, and Japan will give them for their wool, withdraw it from the sluggish market. After all, this is something like our own bright age. A visit to the Civic Theatre, Auckland, strengthens the impression: the organ, with a wee blond man to play it, pops ostentatiously out of a hole in the floor; a jazz band rises and sinks in the same fashion. The plaster glories of the place are beyond description. And very soon some Hollywood star, vastly enlarged on the screen, will sing a song which undeniably is of this year of grace. It is at such times that the visiting American's patriotism grows most intense: for the honor of the Stars and Stripes how ardently he wishes she would stop singing! However, there is the street to flee to, or, on the hill, the Albert Gardens, where Albert's queen, plump and regal in bronze, watches quietly over her city.

The pink-and-white stock, drowsing in great flower beds in those springtime gardens, has the rich scent of history

in it. Certainly there is an abundance of evidence about that Victoria yet reigns. There is a Dickensian quality in the hotels that is delightful; the 'hot joints,' the 'cold viands,' the waitresses' rattling aprons, and the big oil paintings that lean from the walls, all are a part of the spell. The plumbing, too, is Victorian: the careful decorum of the notice 'Gentlemen's Cloak Room' is matched by 'conveniences' equally historic.

At the same time a Britain without manufactures, a land of woolgrowers, cheese makers, and sailors, suggests an age prior to the Industrial Revolution. Again there is supporting evidence. Certainly it is a day prior to the invention of clothes closets or coat hangers; one hook, for the visitor's periwig presumably, is found on the back of his bedroom door. Nor are the fishing and shooting like anything seen in old Britain for two hundred years; the plentifulness of the deer, the largeness of the fish, suggest the times of the Baron Munchausen.

It is all very perplexing. When you call for a sedan chair, up drives a motor bus. And in the bus, as you ride briskly along, are heard the voices of nothing less mediæval than the fairies. The little creatures are not seen, but their voices come in by radio, reminding young So-and-so, who has been balky about his porridge, that he will never grow to be a big strong man if he acts like that. What can be made of such a chronological puzzle? I think the Fates have put a snarl in the thread, to tease me. But the thing for a traveler to do anywhere is to enjoy things as he finds them. In New Zealand this is easy.

II

Professor Shepard, editing Thoreau's *Week on the Concord and Merrimack Rivers*, dedicated it 'to Bliss Perry,

connoisseur in letters, rivers, and little towns.' I am not a very ambitious fellow, but I should dearly love to merit a reputation of that kind. My study toward it, however, is my pleasure — I deserve no praise for it, any more than for eating coconut cake; my bent is to follow it wherever I go. And since there is no little town in New Zealand to compare with Picton in its associations both literary and historic, one very bright day I found myself unpacking my bags there; when I pulled out the mouth organ I blew a loud happy chord on it before I went on, because the place was even more delightful than I had hoped to find it.

No great glaciers overhang Picton. No geysers squirt there. The Maoris who live in a near-by *pah* do not do a war dance thrice weekly for the benefit of visitors: they wear worsted suits even as you and I, and lead equally private lives. Yet a good many New Zealanders go to Picton for their holidays; the Sounds bring them — as intricate a maze of blue waterways and green-and-tawny mountain as can be found in any geography. However, it has never become a 'resort,' bold and brassy; it retains the charm of a bashful little town, retired to the end of its own snug bay. In November, the season scarcely having begun, I found only one other tripper at my hotel. He was a young chap who (thank heaven) knew the names of things, the trees and song birds, and was so chock-full of Maori legends that, on the Domain hilltop at night, he could tell one after another while we waited for the Southern Cross to show in the darkening sky. Nor was the schoolmistress without subtlety who sat at our table. She had the freedom of the kitchen, and impetuously would fry whitebait fritters at odd hours and appear in the parlor with them for a treat.

Picton has a view. My window looked squarely at it. Down the long

arm of the bay, with smooth grassy hills toppling out of the blue water on either side, the vista ended at a pyramidal mountain. In the foreground was a strip of turf, and some children brandishing their sand spades on the beach. Beyond, white sailboats at anchor — just a few. And in the middle distance an island like an old-fashioned bonnet, green with a burst of blossoming gorse on it in a knot of gold. The picture was arranged with almost comic neatness and symmetry. In the morning sun the waves danced gayly; in the evening the sculls were lifted out of their sheds under the Domain pines and went skimming down the bay — I could hear the coxswains call; and the blue shadow that had slept all morning on the eastern bank gathered itself on the western one, hollow by hollow, and resumed its slumber.

'Where were you when the riroriro was singing?' the Maoris gently say when they want to remind a man of his improvidence: in the old days the mandolin music of that tiny warbler was the signal to plant the spring fields. I, improvident, loitered on the Domain paths to hear him. The manukas were in flower in spikes and spires of white, each blossom with a moist red centre like a bit of jam. Through the lace-leaved boughs of the beech and the black shags of the pines I could see the bay's sun-smitten far bank, where the gorse tumbled down in torrents of vivid yellow; or, turning, I could look down to the flat mirror of the river behind the hill, where the red of a cottage roof and the flame of the azaleas swam reflected.

Even into such a calm the bomb of terrific adventure can drop.

Here comes a launch and ties up at the wharf; a man is lifted out groaning. What has happened? The story is all ragtags of blurted rumor. His leg, gone absolutely! But how? A whale!

What, is it Captain Ahab? Was the leg 'devoured, chewed up, crunched by the monstrousest parmacetty that ever chipped a boat'?

Now Ahab's two great meetings with Moby Dick were in the equatorial Pacific; New Zealand has no part in that story. But in Marlborough Sounds whaling has been carried on uninterrupted since before Melville's time; here was the newest and not least heroic chapter in all that long history.

From the whaling launch a right-whale cow and her calf had been sighted; the pursuit began. The cow presently was harpooned, and into her was fired the torpedo that should have ended the struggle. Something ailed the wiring, however. The torpedo failed to explode.

Maddened, the whale charged the launch, and stove in some of its timbers with her tail. Stung by a dozen new wounds, she then turned and did an extraordinary thing: she swam abruptly to her calf, and under him, and tossed him full into the air. Obviously it was a warning to *clear out*.

No more was seen of the calf. But the enraged cow was by no means finished with the launch. Again she charged, dived under it, and raised herself, so flinging it at an angle that loosed the torpedoes on the deck and threw them against the down gunwale. There was a detonation, the captain's leg was finished, a great hole was blown in the deck. At the same moment more planks in the hull were stove in by a final blow of that great tail. The whale then swam off.

Without pausing to take a vote on it, the crew postponed further pursuit of this indeed vigorous heroine. They made for shore. Before they reached the shore, however, the launch sank. The poor maimed captain was well-nigh drowned, too, before he could be

rescued and brought to Picton Hospital.

The story quite made my hair stand on end. News of such violence I am more used to derive from the morning paper, where all the punctuation is in order, than first-hand, in rumor-twisted gasps. Yet here were the azaleas, in pools of calm bright color on the river's mirror. The riroriro still piped his small spring music in the shadowy Domain. But their world, and Picton's, and mine, was somehow changed by that story; and one day since, when I heard the choir boys in a clear passionless treble bid the whales to praise the Lord and magnify him forever, the word gave me a new thrill. I knew a whale whose praise must be uncommonly fit to magnify the Great Lord.

III

The whale in New Zealand history is Captain Cook. On all three of his voyages he made Marlborough Sounds a headquarters. One of the sounds he named in honor of Queen Charlotte; two bays of this sound were named in honor of his ships, the *Endeavour* and the *Resolution*; on one of its islands he planted the Union Jack, on another cabbages, and took the land in the King's name. No brine in the South Pacific, thus, is more historic than that which washes up around Picton's wharf, and no postman's route is more a pilgrimage than that prosaically followed by Picton's 'Scotty,' in his launch, the *Rio Rita*.

Queen Charlotte Sound has very greatly changed since Cook's day. Then, the mountains were covered with forest, rata, tree fern, and the thousand strange shrubs of a botanically isolated wonderland. But the forests of the new Britain, like those of old Britain in Tudor times, have largely been sacrificed to the wool trade: where Cook saw endless forest

now is endless grass, with English foxglove running up the steep slopes in crowds of pink and blue; where he and his hard sailor crews heard the bellbirds in incredible numbers at night singing 'like small bells, most exquisitely tuned,' the English skylark now twitters. All New Zealand is a monument to the British passion for making things homelike, but no part more so than Queen Charlotte Sound.

Despite these introduced amenities, the Sound is desperately lonesome. Not a natural grazing country, a half-dozen acres on the tawny slopes feed but a single sheep, and two thousand sheep support but a single homesteader and his family: there are not many stops along Scotty's mail route. Now and again there would be a cluster of gum trees and pines and a weeping willow in a small cove, a glimpse of a red roof; some man, grizzled by wind and weather even if he were still a young one, would row out for a very limp mail sack. I had been shoving a box about that contained a few marigold seedlings, to keep it in the awning's shade: it went off at one such stop, the embryo of a flower garden in the great waste. At another stop a sheep rancher disembarked, a young and friendly man who had made good company. But there was a well of mystery in him, something he did not unseal. I asked him if loneliness bothered him ever. 'No,' he said, and smiled quietly, and then he got off; his wife met him, two horses were waiting tethered among the manukas, on which they slowly rode up the steep trail over the mountain saddle into a hidden valley beyond.

New Zealand's most famous sheep herder did not stay long. This was young Samuel Butler, who found the spaciousness and activity of life on the ranges perhaps not very fit for his task, which was to nurse his grievances

and spin upsettingly perverse theories. Small, painfully neat bachelor quarters back in England were more suitable. His New Zealand adventures, in fact, he narrates in a quite cheerful tone. 'The men are shaggy, clear-complexioned, brown, and healthy-looking, and wear exceedingly rowdy hats,' he wrote home to his family; 'I was rather startled at hearing one gentleman ask another whether he meant to wash this year, and to receive the answer "No."' But young grinning Samuel soon perceived that the shaggy gentlemen were speaking of sheep washing, and then he listened harder than ever, because he was going to be a sheep herder himself.

Butler, however, never saw Picton, so far as I know. His station was in Canterbury Province. But a remark of his was tragically illustrated in the Picton region, in the battle of Tuamarina.

IV

In *Erewhon* Butler paints a very ugly portrait of a Maori in the person of Chowbok, his mountain guide. His own rule, as a sheep man, in dealing with the Maoris was to 'show a bold front, and, at the same time, do them a good turn whenever you can be quite certain that your kindness will not be misunderstood as a symptom of fear.' How astringent a policy! I feel my pores close as I read it. Yet the battle of Tuamarina proved its soundness.

Of all the Polynesians the Maoris were the most advanced. Their arts, wonderfully displayed in Auckland's Museum, are at once an inspiration and a discouragement: when will the new New Zealand achieve such an art again? The remnant of that admirable people — one twenty-fifth part of New Zealand's present population — occupies a unique position in the Empire: it is the one 'native race' that has been

taken to the British bosom as a social equal. But the history of that friendship has been very rocky.

Such was bound to be the case where one intelligent and moral people took possession of land belonging to another people of the same kind. The colonists had come a very long way to better themselves, they had been very sea-sick, and did not want to go back. The Maoris meanwhile, in amazement, saw their forests come tumbling down. The situation was complicated by the fact that the Maoris had been Christianized before the colonists came: they judged the newcomers by the standards of a fresh and primitive Christianity, and were shocked. The newcomers, at the same time, judged the natives by the standards of 'practical' Christianity, and were driven beyond all patience. The Maoris could not understand that it was rascals and not the average Briton who shot those among them most picturesquely tattooed, and sent their heads, pickled, to Sydney to be sold as souvenirs. To the Maori, too, the British notion that religion requires a man to make the earth fruitful in certain prescribed ways, such as in growing cabbages, was quite foreign. His own familiar kauri tree, towering into the air, or the graceful tree fern, seemed to do honor to the Creator quite as effectively as the cabbage patch that took its place. The honest colonist, on the other hand (I shall omit the head-pickler, who was an extreme and transitory phenomenon), having acquired title to the site for a city for so many dozens of red nightcaps, so many kegs of gunpowder, and so forth, could not understand why the Maoris in time began to be disgruntled. Was n't a Christian bargain a bargain? Was n't the land better for being used more strenuously? Was n't there a chance for everyone to grow richer, Maori and colonist alike? And (triumphant crescendo)

was n't the Lord's work thus being done on earth as it is in heaven?

The colonists' surveyors, unauthorized, were surveying the rich plains of Blenheim. The natives protested: they had sold the land to nobody. This just protest was upheld by the government. All the same, the plain was surveyed. If you could see it now, — green paddocks, orchards, poplar-lined roads, rose-bowered cottages, — you would know what dream it was drove the colonists to their lawlessness. It was land too good to let lie in barbarian hands.

At Tuamarina a mob of indignant Maoris expostulated with an equally indignant mob of settlers. One of the latter was so indignant that he tried a little shooting. He paid dearly for it. His party was vanquished in as handsome a bit of military slaughter as these green islands ever saw. And the government, deeply perplexed, but acting on the highest principles, could only uphold the victorious Maori party, which had been defending its rights.

Now, the Maoris very reasonably thought of the white settlers and the white settlers' government as identical. The magnanimity of the latter they interpreted as 'a symptom of fear,' and, having tasted blood, they were ready to spill more of it in an attempt to regain what they had given up in exchange for the red nightcaps and the gunpowder. With the Forty-sixth Psalm for their battle chant, they embarked on the 'Maori Wars.'

The 'Wars,' however, were a poor show. The colonial troops, which knew how to cope with native guerrilla tactics, scorned the British regulars as parlor theorists bent on executing squads-right no matter what the terrain. The regulars scorned the colonials as land-grabbers whining for military aid. But the Maoris were vanquished all the same, not by military genius, but

insidiously by white-man diseases, the disintegrating effect on communal life of the white man's gifts, and that lassitude which afflicts Polynesians faced by the new strange world that pushes in about them. They dwindled in numbers and spirit, and were overwhelmed.

V

New Zealand has been a little unlucky in its famous men. None of them have stayed there. Captain Cook, Samuel Butler, came and went again. Rutherford, the physicist, has done his work elsewhere, though as a true New Zealander he took the name of his birthplace when he was raised to the peerage, and became Lord Rutherford of Nelson. As for Katherine Mansfield, the bliss and wretchedness of her short life had distant England and the Continent for their setting. Yet she too was true to her birthplace. Her New Zealand childhood became more and more precious to her, and out of it she made her finest stories, the stories of *Kezia*: 'Prelude,' 'At the Bay,' 'The Doll's House,' and 'Voyage.'

It is curious how little of the obvious New Zealand is in these stories. Only here and there an aloe or a passion-fruit ice or a tree fern betrays the fact that it is the new rather than the old Britain she is telling of. The geysers and waterfalls are all left out. It seems almost unpatriotic. Even the beautiful Maori place names are suppressed: 'The Doll's House' originally was entitled 'At Karori.' Only one story, 'How Pearl Button Was Kidnapped,' even mentions the Maoris, and this was a story withdrawn from her wastebasket when she was no longer by to protest. But I am glad it was salvaged, and the New Zealanders are too, because in it the bright-colored clothes, gentle manners, and easy-going jolly ways of their much-loved Maoris are described with inimitable freshness.

In pioneer days a gold prospector and auctioneer named Arthur Beauchamp settled in Picton — that is, if so very roving a man can be said to have settled anywhere. His hens slept on their backs, with their feet up ready to be tied for the next remove, people said, but one part or another of the Sounds was his home to the end of his life. He represented Picton in the provincial legislature, and almost saved the capital from being moved from that port to inland Blenheim by a heroic filibuster. In fact he was an important man, and a character, but the really remarkable fact about him is that he was Katherine Mansfield's grandfather.

His son Harold, later knighted for public services, settled across the Straits in Wellington, where Katherine was born. But after the birth of another daughter the mother sank into a strange tiredness, the care of the children fell to the grandmother, old Arthur's wife, which in a measure tied the family back to Picton again. Do me a favor: reread the story of the renewal of that tie in 'Voyage.' If ever the clear eye of truth and tenderness shone in a bit of writing, it is in that story.

Before embarking, myself, on the voyage across the Straits to Picton, I had gone into a Wellington bookshop and asked, 'Can you direct me to' — here my voice grew very pippy, because I was not going to buy anything and the proprietor knew it — 'to any Katherine Mansfield . . . shrine?'

The question had evidently been asked once too often.

'They've put up a damned gate in her memory,' he barked. 'You'll find it at the top of Molesworth Street.'

I skipped out before he could smash me with a writing pad, and sure enough found the 'damned gate.' It led into the spring gardens of Fitzherbert Terrace, where Katherine went to school. The 'they' who had built it

was no troop of grateful New Zealanders with my friend the bookseller as chairman, but her father, Sir Harold — so I learned from a bronze plate on the brickwork. From the plate I learned also that the daughter had lived in the Terrace, at number 47. This was a roomy, solid old mansion with a bunion of a conservatory, now headquarters for the dominion's Forest Service. Luckily enough I had an introduction to a man in that service, so pushed in briskly. But the old house was quite deserted. I had come at noon.

'Inquiries,' said a sign on the drawing-room door. I peered in, and found the makeshift comfort, unhandiness, and disorder characteristic of a British office. What a wilderness of things not quite put away! An American office must seem very cold and machine-like to a Britisher. Tea, no doubt, was still served by the fire punctually, where Katherine, just come to young ladyhood, had sometimes had the responsibility of the teapot. But the piano on which she had practised, and her cello, — it was the days of her music lessons, — of course were gone; the conservatory, whose panes must have rattled in the gale she described there in 'The Wind Blows,' had not flowers in it, but scientifically ticketed specimens. Despite its files and typewriters and specimens, the room was still a homelike one, however — human beings still enjoyed it, I could see that; and for this reason the great Katherine's spirit, if she comes and peers in as I did, probably does not find it wholly changed, nor alien.

VI

The threads of association that run into and out of Picton, and the charm of the place itself, are enough to make a New Zealand visit memorable. But in fairness the visitor should also take a look at a place so ordinary that no

tourist ever haunts it, and at still another so famous and fine that the guest book there is crowded with the names of Danes, Chinamen, visitors of all nations.

Lumsden, so far as I was concerned, was a matter of chance. When I climbed down from the train there, I was doomed to spend the night. I had not planned the journey very well: no bus went on until the morrow. The little town lay sprawled out in the lap of brown treeless hills, dark was falling, rain threatened. However, a night in even the smallest of British hotels is nothing to dread; when I saw one before me named the Elbow, I made a bee line toward it, feeling rather jolly.

In Dunedin I had stopped at the Provincial, the oldest and I have no doubt the most labyrinthine hotel in that friendly city: it was the coach terminus in the days of the gold rush in those southern provinces, and in it the memory of cracking whips and very boisterous New Year's Eves yet lingers. One of the distant coaching stops in the hills was at a bend in the Oreti River; horses were changed at 'the elbow'; the tavern and hotel that were built there were known by the same name, and have retained it to the present, though the town, meanwhile, with the pompousness of a small place, has risen to the dignity of 'Lumsden.'

Now a person like myself, born a Smith, is always glad to see a not very grand name carried boldly, and made something of; this the Elbow seemed to do. I had a kindly feeling toward it from the beginning.

Since I had come late, I ate supper all alone in front of the dining-room fireplace. The rain had made up its mind to begin, meanwhile; twilight was fast creeping out from the hollows of the bracken-covered hills.

In the commercial room the rain touched the tall windows with a

melancholy sound; fortunately there was a fire cracking between the old black hobs. A sign of the November spring was not wanting, however: yellow columbines in a cloud of spring loveliness stood on the table, where, having called for paper, I was duty-bound to write a letter. The young schoolmaster by the fire was exploring a packet of gladiolus bulbs that had just come in, with the spring impatience to be planting something; I wonder he was not out in the rain by lantern light doing it. On the other side of the fire sat his friend, a draper's salesman, long-legged and jolly. A middle-aged gentleman was reading the news, his glasses balanced on a big red nose like two blobs of dew.

Now and again I caught snatches of the talk. In Lumsden you are bound to hear something about rugby: that little town maintains two teams, and has had as many as three players at a time in the All-New Zealand fifteens sent back to compete in England. Basketball is played in Lumsden, I heard, nine men to a side, as a practice game merely; 'Rugby is our religion,' the bus driver told me next day. He had more than once been led off the field, blind, to have the mud washed out of his eyes. But presently I heard the young schoolmaster saying, 'A caning now and then does no boy harm,' and he nodded his head, looking cheerful as if he'd not hurt a fly. The draper's salesman here stretched out his hand, grinned reminiscently, and worked the thumb knuckle, crying, 'That's where I caught it many a time; by Jove, I did catch it, too!' Upon hearing which the middle-aged man put down his paper to remark: 'You must have got in with a fine crowd down there, eh? As for my brother,' he went on, for he had a brother who was a schoolmaster, 'he never caned a boy in his life!' Having imparted this improbable news, he squared him-

self; we received it respectfully, however, without argument.

Here Mrs. Welsh came in, who ran the hotel; it was soon discovered that both she and the middle-aged man had come from 'down Timaru way.' There were reminiscences. Then a card table was fetched for a game of good-humored 'five hundred.'

Meanwhile my letter was not getting on very fast. I kept looking up and about at the old brown room, with its flowers and fire and friendly people. The world about Lumsden is very large and lonely, yet here in the middle of it was a core of warmth and comfort that I, a stranger, was free to share. Thoreau once said that a man's pants don't fit him until he has worn them three or four years. Chairs take longer: how humane the acquired curvature of these commercial-room chairs! The pictures on walls were equally pleasing: 'Lovers' Lane' in rich color; the big dog and the little dog, 'Dignity and Impudence,' respectively, and a framed Masonic document with its columns, seal, and staring eye. 'Why,' the eye seemed to ask, 'do your American hotels fail to grow old gracefully, like this one?'

On my return from the mountains I made a point of stopping at the Elbow again. It had n't changed. 'We're a great sporting people,' said Mr. Welsh, slipping me five shillings to invest for him in Tattersall's Sweepstakes when I got to Australia. And very promptly, but as if just hunting for his glasses, he would appear from his post in the bar whenever the commercial-room 'wireless' was bringing in news of the trotting events at Dunedin. The Masonic eye, perfect and inscrutable, continued to stare down upon me. But I smiled. In Lumsden, with its rugby and its big solemn hills, but especially in its old friendly hotel, I had the feeling, 'Here, now, I am in New Zealand.'

VII

As for Manapouri, the southernmost and most beautiful of New Zealand's great mountain lakes, here I am, by it. There was brown trout for luncheon, venison for dinner; what will breakfast be? In the lace-leafed beeches the bellbird rings his crystalline double notes over and over again, quietly. In the manukas the riroriro plays his soft mandolin music. Little owls, last night, flew down unafraid to discuss matrimonial matters sitting on the gate, for it is springtime and the mating season, when all talk is of love. Other times they call 'More pork!' very plainly — this is after the wedding, when life is more practical.

Below is the lake. It is deep enough to swallow the Eiffel Tower, and from its glassy waters rise islands shaggy with bush, cliffs, and the sleek gradual slopes of crescent sands. Beyond are the mountains, topped with snow. New Zealand's secret may lie locked in the deeps of all this grandly heaped-up masonry, but how shall I fetch it out?

Excuse me if I do not bother. But I can guarantee that New Zealand's wonders exist, and very wonderful they are. Even the peevish soul of Samuel Butler was taken aback by them: there was something genuinely humble about it when, despite the affected understatement, he wrote in wonder of Mount Cook: 'I saw . . . a single snow-clad peak, many miles away, and I should think about as high as any mountain in the world.' It is almost

the voice of a boy in knickerbockers, his head tipped back, looking.

Here, much nearer and much more my size, are blue lilies starring the russet moss. Each one is no bigger than a nickel. I wish that I had a dishpan to kneel in, to smell them; the ground is moist, and I must not spoil the crease in my trousers: I am going away to-day, to leave New Zealand. The domine, careful of a fluttery heart, who yesterday distinguished our hall by hanging his hat and cane in it, would be delighted with them; now I remember him bent up and crowing like a bird over an orchid our host took us to see in the thick of the manukas. The thing to do would be to take him one, at breakfast.

It is an easy kindness. I cut out an inch cube of the moss, with a lily nestled in it as fresh as the mountain sky, and put it at his place at table. When he sees it, just as I knew he would, he presses his dainty old hands together, and leaning over me exclaims something in the Maori tongue. 'Which means,' he adds, beaming, "'this is a *good place*.'"

The secret hid in New Zealand's mountains is perhaps too strong for them after all. Perhaps in a November spring it can sprout up quite easily through the russet moss. It is very easy sometimes to read a mystery: heaven keep me from bragging, but I think I have done so now, in that lily. And suddenly the gorse of Picton, the roses of the Elbow's wallpaper, bloom fresh and significant in my brain. The domine is right. This is a good place.

LEGEND AND TRUTH

To be New England is to get up early
And make the most of the day. It is to spend
Speech, labor, time, and all essentials dearly;
Rarely to buy, and patiently to mend.
To be New England is to love so fiercely
That the hand trembles, that the deep eyes ache,
Yet speak of love infrequently, and tersely.
It is to suffer thirst a well might slake,
And lift the bucket to the mouth, and sip.
It is to juggle thought, catch even the shadow
Of thought, yet hold it in an iron grip.
It is to own one's father's fertile meadow,
And strengthen every spring the rock-built wall
To keep one meadow in, and others out,
Yet have three different gateways after all.
Or so it was. And so, with much retelling,
The legend lives and true beyond all doubt,
Well learned by outland men and most compelling.
But no one tells the truth about the place.
The hard and ancient virtue blends and blurs.
Few living comprehend its grim old grace,
And least of all the new New Englanders.

JOHN HOLMES

JOHN THE SIX

BY JOSEPHINE W. JOHNSON

I HAD come out that evening into the gray light of the locusts, hearing vaguely the old man's voice behind me saying his 'Good night, Father Vallé' and the door closing, and had returned this greeting as always, but was still in that remote and exalted mood — as of one in whom flesh and spirit have wrangled, and the spirit, triumphant, sits with a smug and calm rejoicing. Still in me were the extreme peace and tranquillity of the words I had read and the silence of library rooms, high-shadowed and utterly voiceless. . . . *Plainness and clearness without shadow of stain. . . . Clearness divine. . . .* And the evening itself was like a wide hollow washed clean of dust.

I walked down past the convent and heard the pigeons moving and muttering quietly in the stone gutters. The blue seeds of the ivy hung in clusters and it was dark in the narrow garden where the nuns walked. It was always very soothing, very pleasant, to pass here, apart somehow from all noise and life. Under the aisle of elms the sisters drifted quietly, like black leaves along the path. Children stopped sometimes and tried to push their hard little skulls through the iron railings, and named the sisters in a loud whisper, — 'Mary Bogardus . . . Mary Agnes . . . Mary Malthus . . . Sister Anna,' — and clung like white whispering monkeys to the barred gate.

I had come on the children unexpectedly that night: four of them,

shrill and clinging in the October dusk — three little girls and Shean Lynn, small and ugly as a little ape. The girls jumped down and scattered giggling when they saw the priest, but Shean stared and hesitated. Over his shoulder dangled a bag of books and another on top, full of unsold magazines. He held one out and waved it in front of me, standing with a sort of timid defiance on the walk. 'New edishun, awnly five cents,' he mumbled. 'Get your new edishun off of me, Father! All about — all about —' He stumbled and got red.

'All about the latest love suit and the penthouse widow and the broken heart,' I finished for him, and took the stained magazine. I spoke vaguely, still in that remote and unruffled mood of peace, and held out my hand. Shean grinned and took it with hesitation.

We walked a few steps in silence, the child trying to pace solemnly, while his magazines thumped against his knees. He had on shoes, but one was bigger than the other, and he walked with a kind of shuffling hop.

We passed under the shadow of the church, and the windows were lighted for early service. A blue-gold stream came out across the pavement and Shean stared back at it over his shoulder. I asked if he went to church sometimes, and he shook his head, but made no comment.

We walked on a little way and then he cleared his throat like an old man.

'I read the Saint John to myself,' he said.

I was surprised, and stopped and looked down at him. 'Saint John?' I repeated stupidly.

'John the Apostle,' Shean said. He was a very homely and thin little boy with adenoids and bony cheeks, but his hands had a hard, determined grip, much older than his face.

I blundered down my mind, hunting in the apostle's story for what might have fascinated him in the brief record of suffering and resurrection. I thought how strange and incredible that Shean too might have found the amazing power of hope and belief, and that exaltation beyond understanding which is born of words. I thought of the manger scene, the preaching in the temple, and the austere dignity of Christ before Pilate. I thought of the glory of the Resurrection, the prophecy of the Second Coming, and I thought of Christ's words, *The meek shall inherit the earth*. I thought too of the fantastic glory of the Revelation, and I wondered if this might be what had brought the queer and excited light to his eyes; or, if not this, then what did he find in the story worth spelling out all the words with such labor and holding his pinched face over the page? Then I leaped to a sudden thought. 'Is it where Christ says, *Suffer the little children to come unto me* — is that where you read the Saint John, Shean?'

Shean shook his head. 'That ain't the part,' he said. 'I never read that part. I read all the time in John the Six. I turn where it talks about fish

and bread. Where it says a boy come selling those loaves and two fish hooked on a string. And Christ feeds five thousand people off of that bread, and the two fish turns into a pile and spread out miles around.' He waved his arms in a circle and gave a shuffling hop. 'Were they baked or fried I don't know, but everybody ate till they almost puked, and still there was twelve basketfuls of the scraps left over. Twelve baskets left over and nobody wanted nothing! Boy, those fish must have been a sight! After Christ, I would n't have waited for nobody else to begin. I'd have eat as soon as *my* fish was done. I'd have wrop it aroun' with one of them buns and stuffed it in!'

From the way that his mouth moved, and the strange and retreated shining in his eyes, I knew that Shean was eating the fish and bread, and he clutched the invisible crumbs that spilled across his hands. Then he gave another excited shuffle and looked up at me. 'That's a swell story, ain't it, Father?' he said.

'A swell story, Shean,' I answered him.

He stooped and knotted the string again around his shoe, then jerked up, red and excited with a sudden thought. 'Say, Father,' he said, 'what did they do with all them scraps? All them twelve bucket-loads left over? Say, maybe Christ made a big pudden out of all that bread! Boy, what a pudden *He'd* have made!'

All I could see of his face was two enormous eyes, and I could not answer.

NEW EYES ON THE UNIVERSE

BY GEORGE W. GRAY

I

PROFESSOR ALFRED NORTH WHITEHEAD has pointed out that, although science defines its subject matter as consisting of such things as are observed by the senses, — 'sights, sounds, touches, bodily feelings, shapes, distances, and their mutual relations,' — its actual performance is in sharp contradiction to this professed programme. Increasingly its researches push into domains beyond the senses. Its present frontiers are outside human experience. 'When Lord Rutherford at Cambridge knocks a molecule to pieces, he does not see a molecule or an electron. What he observes is a flash of light.' When Dr. Hubble at Mount Wilson measures the red shift of the light from a remote spiral nebula, he does not actually see any reddening of the rays. Indeed, he does not see any light at all, or any nebula. What he sees is a diminutive photograph of fuzzy lines — a photograph which required forty hours' exposure to impress itself on the sensitive plate.

Without photography man would not be aware of these remote bodies. Not only is their light too faint for the eye to detect even with the largest telescope, but its more active rays are of a wave length to which the optic nerve is insensitive. When we survey the range of radiations which have been discovered in nature, and realize that in this wide sweep of sixty octaves of energy vibrations the human eye

can discern only one octave, we are tempted to conclude that the eye was not fashioned to explore the universe. Science has progressed by augmenting eyes and extending eyesight with scores of devices capable of seeing the invisible, touching the infinitesimal, sensing the impalpable. Practically all our knowledge of the world within the atom and beyond the stars has been procured in indirect ways.

These indirect ways are dependent on eyesight to get their message delivered. The researcher must use human vision to read his instruments. To that extent — and it is fundamental — the senses remain the ultimate arbiter of knowledge. It is clear, though, that the observer has no direct knowledge of the invisible entity he is studying, but only of its effects on visible objects of the apparent world — such things as photographic plates and fluorescent screens, meter pointers, and the like.

The modern scientist is like a detective who finds clues, but never gets a glimpse of the fugitive he seeks. From thumb prints, foot tracks, handwriting, and other circumstantial evidence, the detective builds up a picture of what his quarry must be like. Similarly the physicist builds his picture of the atom from clues which the atom lets drop, or from other clues which the researcher twists or tortures out of its invisibility by ingenious tricks — indirect sights, indirect touches.

Much of our present knowledge of atomic structure, for example, has come from the practice of bombarding atoms with particles and measuring the angles at which the particles rebound. The feat is comparable to that of throwing tennis balls against some unknown object in the night, and from the directions in which the balls bounce back and the energy of their recoil determining the size and shape of the object, and finally concluding that it is a log cabin. This may seem to be a curiously indirect and cumbersome way of measuring log cabins, but if the cabin is a mysterious structure which cannot be seen by mortal eyes or felt by mortal hands, though fortunately it does reflect tennis balls whose resultant behavior we can measure, who can object to the method so long as it yields trustworthy results? In a certain sense the bounced balls are an extension of the hand that throws them, and in that sense we may say that we do touch the cabin — or the atom. 'I claim,' said Professor Gilbert N. Lewis, 'that my eye touches a star as truly as my finger touches this table.'

II

In this sense, the unaided eye of man can 'touch' about six thousand stars. That is the limit of human vision. When Galileo made his 'optick tube' and through its $2\frac{1}{4}$ -inch lens turned his gaze upon the heavens, — first of mortals to behold that glittering expansion! — he was surprised to find that he could count ten times as many stars as he could see without the telescope. Perhaps he had expected the glass to magnify the stars, as it had enlarged the image of distant ships outside the harbor at Padua. But no, the stars remained mere points of light — the only difference being that through the telescope they shone more brightly, and fainter orbs invisible to

the unaided eye were brought to view. If he built a larger telescope, would it reveal yet more stars? And might not some of them be so magnified as to show a measurable disk like the sun's?

Galileo built larger and yet larger telescopes, and his successors have kept up the pace, until now we have one with an aperture of one hundred inches diameter, the great Hooker reflector at Mount Wilson Observatory in California. Its light-gathering power is equivalent to that of ninety thousand human eyes. Thus it will render visible objects which are ninety thousand times fainter than the faintest of the six thousand that overawed the Psalmist. Indeed, this 90,000-eyed Argus has brought more than five hundred million stars to view, and by photography has revealed the existence of as many more again, so that to-day man has the instrumental means of studying a thousand million stars. But not one of these distant suns, neither the seen nor the photographed, reveals itself in the image of a disk. The stars are too far away for such intimacy. All remain, even under our highest magnification, points of light.

Astronomers, chafing against such limitations, calculated the optical requirements. Their figures showed that a telescope would need a lens or mirror of twenty feet diameter in order to show the beginning of a disk of even the largest star. The possibility of attaining so prodigious an optical piece seemed very remote indeed. Since 1929 a staff of experts has been planning and working to build a 200-inch reflector, which is assumed to represent about the upper limit of manufacturing possibilities under present conditions. The time that has been consumed, and the innumerable labors of testing that have been involved in even the preliminary work, suggest the magnitude of the undertaking. With the attainment of new materials and the im-

provement of technique, even larger instruments may eventually be financed, constructed, and installed; but meanwhile there was only the 100-inch, and this consuming desire to focus the giant Betelgeuse under an eyepiece and see its image as a red disk — something to be measured as the microscopist maps the dimensions of a blood corpuscle.

If the result could not be attained directly, possibly it might be got indirectly — like the measurement of the log cabin in the dark. If it was impossible to produce the image as a disk, perhaps one could manipulate the light rays from Betelgeuse in such wise as to make them betray some of the unmistakable characteristics of a disk, and from these clues infer what the image itself would be. In other words, look for thumb prints, footprints, handwriting, and other characteristics.

So it has worked out. An ingenious apparatus devised by an American physicist, Dr. Albert A. Michelson, provided the astronomers with an instrument which makes it possible to read the meaning of the starlight's behavior in terms of the diameter of the star. The interference bands, those fuzzy rings which surround the image of a point of light seen through an opera glass or telescope, are the thumb prints, footprints, and handwriting which become so singularly significant to the interferometer. It translates them into angular dimensions, and, by an actual sliding of two oppositely positioned mirrors on a twenty-foot horizontal bar, the numerical index to the star's diameter is indicated. Thus, from certain fringes of its light, the giant Betelgeuse was wheedled into revealing its girth — which turns out to be that of a diameter of two hundred and fifteen million miles. The device has since been used to measure five other stars. One of them, the red Antares of the Scorpion, shows the enormous diameter of four

hundred million miles — a diameter more than twice that of the earth's orbit around the sun.

To tape smaller stars a wider separation of the two mirrors is necessary, and at Mount Wilson a fifty-foot interferometer has recently been constructed. With this instrument — which, for its special kind of work, is equivalent to a telescope of one hundred feet diameter — it is possible to reach more distant and smaller stars, perhaps to get down into the sun's class of dwarf stars, possibly even to mensurate the rarer smaller white dwarfs that here and there betray their presence and their peculiarities in the tell-tale lines of their spectra.

III

Stellar spectra are the most revealing of all the celestial clues that come to us. Perhaps the greatest physical experiment — if one may judge by its fruits to this day — was Sir Isaac Newton's investigation of 'the celebrated phenomena of colors.' He cut a small round hole in his landlady's window shade, passed a beam of sunlight from it through a glass prism, and discovered the nature of the solar spectrum — a mixture which the triangular rod of glass sorted out into the familiar rainbow pattern. Indeed, the rainbow itself is a huge solar spectrum set up in the firmament, as though to give man a broad hint of the master key that lay waiting all ready to his use. How long it had to wait! In the early nineteenth century, a hundred years after Newton, Auguste Comte predicted that man's curiosity must forever be thwarted by the heavenly bodies — for, said Comte, man can never know the composition of a star. He reckoned without the rainbow — but so science, too, reckoned ignorantly for many groping years.

The thing was not entirely neglected,

though. There was a young Scot, Thomas Melvill, who thought to direct the prism toward firelight and see what it would show. In the flames of burning alcohol he successively introduced particles of alum, nitre, potash, sea salt, and was fascinated by a bright yellow spot that flared up brilliantly at each burning — and always in the same position in the spectrum. That ubiquitous yellow spot was a tantalizing mystery for a hundred years.

Meanwhile, it occurred to another Englishman, William Wollaston, to introduce a change in Newton's original set-up. In place of a round hole that had been used to admit the light in all previous experiments, Wollaston substituted a narrow slit. When sunlight passed to the prism through this slender opening, it was broken into the familiar colors as before, but Wollaston saw something that no other observer had ever beheld. The spectrum was sharper than the shaggy rainbow of previous observations, but a more remarkable difference lay in this: *it was traversed by seven dark lines*. They were curious — seven parallel slits of shadow cutting athwart the seven broad bands of color as though to separate one hue from the next. Wollaston accepted this as the explanation, and with that easy guess dismissed the subject. Seldom has a man missed fame by so slight a margin. He had glimpsed the key to the stars, — the key to the atoms, as it has turned out, — but did not know it.

Destiny was not idle. Over in Germany a train of events was shaping. It began in Munich with the collapse of two old dwellings in a wretched alley, crushing their occupants in the ruins. Rescuers searching the débris found one survivor, a fourteen-year-old orphan, Joseph Fraunhofer. It chanced that the Elector Maximilian Joseph witnessed the rescue. Appalled by the tragedy, and impressed by the providential deliverance of the boy, he be-

stowed on young Joseph a purse of eighteen gold ducats.

With part of his gold the astonished boy bought freedom from the tradesman to whom he was apprenticed. The remainder went to buy books and tools with which presently he set up shop as a polisher of optical glass — meanwhile burning the midnight candle in rapt study of mathematics and optics. Eventually Fraunhofer was known all over Europe as 'the great telescope-maker,' a title won by designing and shaping 'the great Dorpat refractor' for the Russian observatory. Its lens of nine and a half inches diameter was for years the largest telescopic glass on earth — and the most powerful, as was attested by many remarkable discoveries.

But the greater discovery is not any of the stars that were sighted first through the great Dorpat refractor, but a quite incidental find that Fraunhofer made in the course of testing combinations and curvatures for its lens. He was striving to attain perfect light transmission, and this led him to study the composition of sunlight. He made a large prism of exceptional clarity, and, in order to intensify the sunlight, passed a narrow beam through a small telescope and focused it on the prism. The result was a broad spectrum of brilliant colors traversed by *thousands of dark lines*. Wollaston, twelve years before, had reported seven lines, but Fraunhofer counted six hundred, and saw many more too fine for sharp definition.

It should be noted that this was an original and independent discovery, as many other rediscoveries in science have been. The telescope-maker knew nothing of the British physicist's work, and he was vividly excited by the novelty of these strange parallel shadows that persistently marred his rainbow. He shifted the apparatus to different positions, but there was no

change in the dark lines. He tried early morning sunlight, noon light, that of afternoon — but time made no difference in the position of the lines. They were inherent in the light, and, presumably, in the source of the light.

Fraunhofer set to mapping the lines, and carefully charted the positions of 324. The more conspicuous ones he took as landmarks, sighted their positions precisely through a theodolite, and labeled each with a letter of the alphabet. Two dark lines in the yellow part of the spectrum were designated with the letter D, for example. This early nomenclature remains to the present day, though with thousands of extensions.

The investigator next turned his prismatic eye on the moon and the planets, and found in their light a fainter replica of the sun's spectrum, as would be expected of reflected sunlight. He tried the stars. Castor showed a markedly different pattern; instead of many fine lines, he could distinguish only three broad bars of shadow, two in the blue region, one in the green. The spectrum of Pollux was quite different, somewhat similar to the sun's, while that of the bright Capella was almost a duplicate, in dimmer outline, of the solar pattern.

Then, in examining the light of laboratory flames, Fraunhofer made still another discovery. That bright yellow line which had impressed everybody who had ever looked at a flame spectrum showed up through his more powerful prism as *two* yellow lines. He looked for them in the solar spectrum and found their counterparts in two *dark* lines, his D lines! Obviously there was some sort of inner harmony here — but a telescope-maker cannot continue indefinitely in bypaths, no matter how fascinating. Fraunhofer published his findings in a German technical journal, and turned back to his main job of fashioning the most nearly

perfect telescope lens in the world. When he died eleven years later, in 1826, aged thirty-nine, two words were cut on his tomb: *Approximavit sidera*. But science was to puzzle another twenty-five years over this curious complex of dark lines by which he had indeed reached the stars.

IV

By the middle of the nineteenth century it was generally accepted that colors were an index to the kinds of substances that were making the light. This seemed indicated by all the experiments, and was conclusively demonstrated by two Heidelberg professors, Gustav Kirchhoff and Robert Bunsen. The two bright yellow lines, for example, were identified with sodium; their universal presence in laboratory flames was accounted for by the fact that sea salt (which is half sodium) is diffused through the atmosphere in minute floating particles, and so inevitably enters all flames. But if the same element was burning in the sun, why did it show in sunlight as dark lines?

Kirchhoff found the answer in a simple experiment. He vaporized sodium in his laboratory, and directed a beam of sunlight through the hot vapor and on to his prism. In the resulting spectrum the dark D lines showed thicker, as though their shadows were deepened by the vapor. Would the gas have a similar effect on a flame spectrum? Kirchhoff lighted a flame which gave the familiar yellow sodium lines, shot a beam of its light through the glowing vapor of sodium, and instantly the bright yellow lines became dark D lines — identical with those of the solar spectrum.

So *that* was the secret. Sodium vapor in the sun's atmosphere absorbed the light generated by incandescent sodium in the sun's body, thus leaving dark

blanks in place of the absorbed rays. A test of other metals in the laboratory confirmed this. Kirchhoff tried iron, and found that iron vapor absorbed its rays and left corresponding dark lines. He tried magnesium, calcium, copper — and in each case the result was the same. An atom, it seems, is somewhat analogous to a tuning fork. If it is capable of generating vibrations, or rays, of a certain wave length, it may also absorb vibrations, or rays, of the same wave length — given the right gaseous conditions.

Kirchhoff's experiments not only cleared up the meaning of the Fraunhofer lines, but also pointed out how they might be used. For when it was recognized that the dark lines are the colored lines in blank, and that each signals the presence of a certain element in a certain energy state, it was necessary only to match terrestrial spectra with stellar spectra to determine the composition of the stars. The same iron lines that flared in the laboratory flames showed in the solar flames — and so with each of the elements. There was a language common to earth and the stars, and man at last had learned it.

And what a packed language the spectrum is — how versatile its expression, how economical its code! From these lines the astrophysicist has learned not only the composition of the stars, the kinds, quantities, and thermal state of their substances, but also such varied details as the stellar luminosities, distances, directions of rotation, motions of approach or recession, and, more indirectly, their sizes and masses. It is not strange, therefore, that many of the large telescopes are auxiliaries to spectroscopes — that is, their main work is to feed light into a train of prisms.

As telescopes have grown in size and in light-gathering power, so too have spectroscopes lengthened their focus

and enlarged their prisms. At Mount Wilson there is a huge instrument with prisms eight inches thick, beautiful solid blocks of transparency which weigh, with their mountings, one hundred pounds each. The spectroscope combines two of these large prisms with a mirror to reflect the light back through them, thus gaining the dispersion effect of four prisms. With this a spectrum of twenty inches length may be obtained, whereas the best star spectrum of twenty years ago was less than four inches. The longer the spectrum, the wider the separation between lines, and the greater the number of distinguishable lines.

In the physics laboratory the spectroscope has become as indispensable as in the astronomical observatory, for these dark and bright lines are the thumb prints of the atoms, and provide many of the data on which modern atomic theory has built its amazing picture of the infinitesimal. Theoretically, each element may generate thousands of lines peculiar to itself. Several thousand lines individual to the iron atom in its various stages of excitation have been identified in the sun, for example, and altogether more than 20,000 spectral lines in the sun have been mapped. Of all spectra, solar, stellar, and those produced in the laboratory, more than 200,000 individual lines are known.

For bright light sources — such as the sun, laboratory flames, arcs, sparks, and glows — it has been found desirable to substitute for the prism a diffraction grating. This is a flat plane of hard metal which has been minutely furrowed with a series of delicate parallel lines cut into its surface, sometimes as many as 30,000 to the inch. When a beam of light strikes this surface, its rays are diffracted by the tiny furrows, sorted out into their progressive order of wave lengths, and a spectrum of high magnification and fine

detail is the result. At the Massachusetts Institute of Technology a spectroscope of the grating type recently installed occupies a whole room, and throws on a semicircular screen a spectrum of forty feet length. Under this wide dispersion, lines that ordinarily show up as single lines separate into doublets, triplets, or even more, and the intricate complexity of the atomic gyrations which generate light is suggested.

V

The spectroscope is a sorting machine; the photographic camera is a recording machine; when the two are combined they make a spectrograph — that is, a spectroscope which photographs its rainbow. Most of the spectroscopes used in scientific research are spectrographs. Obviously there is an advantage in having a permanent record which may be studied at will and filed for reference. But the spectrograph has yet more fundamental advantages. It records fine lines that the unaided eye cannot see because of the low intensity of the rays. Also, the spectrograph is sensitive to vibrations in the ultra-violet and the infra-red, radiations to which the optic nerve is numb.

An example of these advantages in action may be taken from a bit of current research. For long years solar physicists have been sifting the sun into its elements. Beginning in 1859, when Kirchhoff and Bunsen discovered the presence there of iron, sodium, and others of its more conspicuous ingredients, the analysis has advanced, element by element, as spectroscopes became more adept at resolving faint lines and as photography extended its sensitivity farther into the invisible. By the beginning of 1934, fifty-nine chemical elements had thus been identified in the solar fires. But the earth shows ninety-two elements. Science,

therefore, has been searching the sun's rays for the missing thirty-three that will round out its identification of earth stuff with sun stuff.

Recent gains in photographic sensitivity have been in the range of long wave lengths that extend from the red rays into the heat rays. Thirty years ago it was difficult to photograph red light; in that region of the visible, the eye could see more than the camera; and photography was of little use to an investigator of red phenomena. To-day it is possible to photograph not only the whole gamut of red, but also far out into the invisible infra-red.

During 1932, a physicist at the Bureau of Standards in Washington, C. C. Kiess, was making a spectrographic study of various elements with the aid of the new infra-red photography. He found that the light of burning phosphorus gave a number of lines far out in the infra-red region. It was already known that phosphorus shows several lines in the ultra-violet, and none at all in the visible spectrum. That is to say, no human eye has ever seen the light of phosphorus. When you strike a match, it is the flames of sulphur, oxygen, and other participants in the combustion that flare into fire; the most active agent, the phosphorus, gives off only invisible heat rays and invisible ultra-violet rays.

Now, to get back to the sun. In 1934, at the Princeton University Observatory, a research assistant, Charlotte E. Moore, began a search among lines measured on some solar spectrograms made at Mount Wilson. The plates had been photographed there by H. D. Babcock with the great solar spectrograph, using the most sensitive infra-red plates available, and many lines far out in that invisible region of radiation were rendered visible. Might not some of the new-found solar lines signal the presence of phosphorus? Dr. Moore pursued that question. Of

the phosphorus lines observed by Kiess in the laboratory, she selected those which should be present in the solar spectrum if the element were detectable by this means, and compared them with the infra-red solar lines photographed by Babcock. The three leading lines agreed with reasonable accuracy, and two fainter ones seemed in probable agreement. Many careful measurements of position and intensity were made before the conclusion was drawn. At last, in April of 1934, the discoverers announced in a brief note in *Science* that 'phosphorus may now with considerable assurance be added to the list of elements present in the sun.'

The spectroscope alone could not reveal that presence. Ordinary photography, though it is most sensitive in the ultra-violet region where there are strong phosphorus lines, could never have detected it — because, curiously, the extreme ultra-violet rays of sunlight are absorbed in the upper atmosphere, including those of solar phosphorus. The infra-red rays have no trouble getting through, — they are among the most powerful of the radiations that reach us from the sun, — but until recently there was no way of photographing the extreme infra-red. Since 1924 the photographic reach into this invisibility has increased four fold.

Not only has photography steadily pushed its conquest into unseen realms, but even in the visible region it has shown an advantage which the eye does not possess. This is its ability to build up an image with time. The eye either sees or it does not see. But, with a photographic emulsion, what may not be imaged in one second or one minute may be clearly got if the exposure be prolonged many minutes or hours. This fact was first recognized by George P. Bond, then director of the Harvard College Observatory — where the first

photograph ever taken of a star was made in 1850, and where stellar photography may be said to have been cradled. As early as 1857, Bond pointed out that, when a photographic plate is exposed, a certain time elapses before any observable image is formed. The length of this period depends on the intensity of the star's light and other conditions, and provides a precise way of measuring brightness. Instead of the vague visual estimates then current in astronomy, — by which the twenty brightest stars were ranked as of the first magnitude, others not quite so bright as of the second, and so on, — Bond proposed that stars be rated according to the length of time required to photograph them. Out of this suggestion has grown the modern science of stellar photometry.

Tests at the Kodak Research Laboratories show that from four to perhaps one thousand quanta (or units of light) are necessary to render a single grain of photographic emulsion developable — the lower limit, four quanta, producing a barely perceptible deposit on a high-speed plate. The rods and cones of the retina are the equivalents in the eye of the silver halide grains in the photographic emulsion, and recent research shows that one quantum is sufficient to activate a rod or a cone. It is difficult to make a scientific comparison between the eye and the photographic plate without overburdening the statement with technical qualifications, but in general the idea may be suggested as follows. If we take light of the wave length 5550, which is in the green region of the spectrum where the eye is most sensitive under normal conditions, and compare the intensity of illumination required for seeing (in a half-second exposure) with the intensity of illumination required for photographing, we arrive at this interesting comparison: for minimum seeing, 20,000 quanta per square centime-

tre; for photographing, 30,000,000,000 quanta per square centimetre.

On this comparison, the retina is at least a million times more sensitive than the photographic plate — though, it must be admitted, the wave length used in the foregoing example is not in the region at which photography is most effective. In that most effective region, the photographic plate requires only about a tenth as many quanta, or 3,000,000,000 per square centimetre — which leaves the eye still thousands of times more responsive to light than the most sensitive photographic emulsion.

But the eye is limited by the 'now' factor. It is the number of quanta that strikes the retina at the moment, within the allowed half second, that determines whether the image is seen or not. The photographic emulsion is not so dependent on the instant: it responds to the cumulative effect. The faintest objects that have been photographed with the 100-inch telescope are nebulae at a distance of more than 300 million light-years; their light is so scant that on the average only one quantum per second falls on each twenty square inches of the mirror, or a total of 500 quanta per second for the entire mirror; yet by continuing the exposure through several nights the necessary millions of quanta are gathered and the image slowly accumulates. The inanimate grains of the emulsion are permanently altered by the absorption of the light units, whereas the animate elements of the eye continually readjust their molecular mechanism for the next impact, and so hold no alteration as permanent, no arrangement as the beginning of an image later to be filled in.

The faintest stars that can be seen with the unaided eye are of the sixth magnitude — equivalent to the light of a candle seen at a distance of six miles.

When the eye looks through the 100-inch telescope, which multiplies the

eye's light-gathering power by ninety thousand times, it can see stars down to the nineteenth magnitude — a candle at a distance of 2400 miles.

But when the photographic camera is clamped to the eyepiece of the 100-inch telescope and exposed for long periods, stars of the twenty-second magnitude show up as dim images on the most sensitive plates — a candle photographed with the same apparatus at a distance of 9600 miles would show the same brightness.

This is about the limit of present telescopic photography, but when the 200-inch telescope is installed it should be able to photograph objects down to the twenty-fourth magnitude — a luminosity equivalent to that of a candle viewed through 24,000 miles of space.

VI

The remarkable advances recently made in the technique of telescope design and construction have already been outlined for *Atlantic* readers by Dr. George Ellery Hale, the master builder. Almost as remarkable, if not equally so, have been improvements in auxiliary devices which extend the reach or multiply the strength of the telescopic eye. An example, among several that might be cited, is the photoelectric cell.

This device — the so-called 'electric eye' of television, the sound pictures, and hundreds of other industrial applications — has long been used in scientific research as a detector of radiation and a measurer of its intensity. For several years Dr. Jakob Kunz, of the University of Illinois, has been producing cells of an ultra-sensitive type for the use of astronomers in gauging starlight. Quite recently Dr. A. E. Whitford at Washburn Observatory, Wisconsin, introduced some important changes in the mounting of the apparatus; he installed the cell and its amplify-

ing tube in a compartment from which the air is exhausted, and produced a stellar photometer of extraordinary responsiveness. It has been used at Mount Wilson by Dr. Joel Stebbins and Dr. Whitford to measure faint luminosities beyond the grasp of photography — for example, invisible outlying stars of the Andromeda Nebula. Photographic surveys have measured this outside galaxy as of about 40,000 light-years diameter, but the electric eye sees it as double that, and therefore of dimensions comparable to the scale of our own Milky Way. This electric vision conveys its report by means of a spot of light moving along a graduated scale — indirect vision, like the tennis balls bouncing off the log cabin, but accurate vision nevertheless.

It is in these auxiliary devices that the next great advances in astronomical equipment seem promised. In 1934 the Harvard College Observatory installed

at its new station on Oak Ridge, Massachusetts, a 60-inch parabolic mirror of .3 to 1 focal ratio. That is to say, the mirror is so deeply concave that the rays collected by its 60-inch reflector are focused at a point only 18 inches from the mirror. This focus is too short for a definable image. It will not help eyesight or photography, but it provides an effective trap for collecting light and feeding it into a photoelectric cell, thermopile, or other sensitometer. It suggests a type of observation that will be increasingly developed during the next decade.

Our new eyes of the universe are less subjective than the old, and more objective — and that, we believe, is a gain. The universe, as J. B. S. Haldane has suggested, may be not only 'queerer than we suppose, but queerer than we *can* suppose.' For the exploration of that sort of universe we need more than human eyes.

'THE DEAR ONE'

BY HENRY WILLIAMSON

WHEN I came down the valley after trout, the boys cried out that they had a baby Tarka. They had found it outside a field drain in the deer park, and had carried it home in a handkerchief.

A glance showed that the small, sinuous, brave-sly-eyed animal was no otter, but a stoat. The tip of its inch-long tail was dark brown, distinguishing it from a weasel. It was scarcely weaned. Its milk teeth were not yet hard. It made a shrill, chattering cry. Probably its mother had been trapped by one of the keepers, and it had wandered out in its hunger.

The boys declared it was an otter cub. Mother had said so. Farmer had said so. Their minds resisted readjustment. I said I thought it was a stoat; a little Swagdagger, not a baby Tarka.

'Oh, I love it!' cried the elder boy, aged seven, ecstatically.

'Better put it back where you found it,' I retorted, irritable with too much to think about, which in turn had been caused by my own indolence.

'Oh, I do love it!' said the boy.

Half seriously I gave it the worst character: a bloodsucker, bird strangler, gnawer of rabbits' eyes, eater of living flesh only.

'But God made it,' retorted the seven-year-old.

'His religion,' I explained to a friend, 'comes entirely from his schooling, his parents having been impartial,

noncommittal, even evasive about this profound problem.' And turning to the boy, 'How do you know God made it?'

'You told me when I was four that God made trout and otters, so I thought God must have made this too,' he replied. When sure that we were not laughing at him, but at me, he dared (being a very sensitive child) to ask again if he might keep it. Might he, please? Certainly, if he wanted to. He could always do what he liked.

It became for them 'the dear one.' After their bath (tepid) they came down in pyjamas to peer into the barrel and say good-night to it, where it lay curled in cotton wool beside a saucer of milk and bread. Such a darling little thing, was n't it, Dad? Such sweet little paws and face, had n't it, Mum? The elder boy hugged himself with joy. The next night it nipped his finger; he looked bewildered, then he scowled with mortification at the betrayal of his benevolent feelings, and gave the stoat to his brother, aged five.

The beast did not thrive. Occasionally I saw it trying to eat. It chattered much, calling its parents. It was ill. Obviously it had been injured when they brought it home. I thought it would die soon of peritonitis; unless the Parson Jack Russell terrier, expert mouse snapper, secret-sly chicken slayer, got it first. The terrier, at every opportunity, and despite threats and

thwacks of every kind, dashed to the barrel whenever he saw a chance.

Hearing or smelling the dog, the infant stoat would raise its long flat head, the shape of a hawk's skull, and remain poised. It showed no fear (although it had fear). Weak, starved, soon to die, it did not cower or flinch, but waited with head upheld in the enemy's direction.

Seeing its plight, the elder boy reclaimed it. We fed it on warm milk from an old fountain-pen filler. We wrapped it in cotton wool. He was heard praying at night for its recovery. Secretly, in the tenderest tones, while leaning cautiously over the barrel rim, he exhorted Swagdagger to live.

The fourth evening the terrier, whom no threat could daunt, got into the barrel. We hurried to the sounds of thumping, shoving, scrambling, chittering. He was lugged out and hurled away. There by the overturned saucer

and crushed box stood the stoat, its head still upheld, but swaying on its neck.

In the morning it was curled on its side, a mite hardly big enough to fill the palm of the hand, languid with the chills of approaching death. I carried it in my trouser pocket, but soon 'it was a-go,' as the old people say of death in the West Country.

The seven-year-old appeared round the door, cheeks red, eyes wet with unhappiness. He would kill the dog. But why? God also made the dog. Oh, did God? The boy ran away, and hid; was observed shaking his fist at the sky; told his mother he would say no more prayers.

Later, when we buried 'the dear one' under a rose tree, the boy became tranquil when it was suggested that he would perhaps see his friend again in a different form, but under the same sky. And the next day all was forgotten.

THE GREAT HORNED SERPENT

Adventures of a Modern Dragon Hunter

BY HERBERT RAVENEL SASS

MYSTERY stories are always popular, and, of all the forms of animal lore, snake stories are by far the most alluring to the general reader. This I know because for years I conducted a newspaper 'woods and waters' column, and nothing printed therein about bird or beast or fish or flower stirred half so much interest as the occasional items concerning snakes. There is a strange and potent fascination in the serpent — that 'divine hieroglyph of the demoniac power of the earth,' as Ruskin called it. The very life of my column depended upon letters sent in by readers; and whenever interest seemed to flag and these voluntary contributions were few, I had only to print some curious bit of serpent stuff to start the letters again. Immediately a dozen correspondents, ranging from unlettered woodsmen to doctors of philosophy, would be reminded of some similar adventure of their own. Still more abundant would be the response if the original item involved a mystery or posed a question about the ways of serpents. Then would come pouring in a flood of letters, often suggesting out of personal observation some interesting solution of the mystery; and the contributions thus received would suffice to fill my column for a week.

Now I believe that, in respect to this deep interest in and curiosity about the serpent kind, the readers of the *Atlantic*

are in no wise different from the readers of that little column of my newspaper days. Hence this article hopefully solicits their aid in an effort to solve the most alluring mystery in the whole field of American serpent lore.

The Great Horned Serpent — or the horn snake, as he is commonly called — is known to thousands of honest folk all over the United States; yet those haughty intelligentsia, the herpetologists or snake scientists, utterly deny his existence. They assert impatiently that there is not and never has been such a creature. Nevertheless, in spite of their angry thunders, he lives on, fascinating, sinister, stubbornly refusing to die — a myth, if you will, but a myth so virile, so widespread, and upheld by so numerous and so respectable a company, that he cannot be dismissed as mere moonshine unworthy of the attention of serious men.

There is *something* in him, not tangible perhaps, but seemingly immortal; and it is safe to say that many readers of the *Atlantic* have encountered him. Perhaps those readers, aware that myths sometimes have a singular intrinsic virtue and a little resentful of the dogmatism of the scientists, will lend their aid in this adventurous attempt to track the monster to his lair and thus resolve the most beguiling (I had almost said) of all American mysteries.

I

The Great Horned Serpent is no vulgar newcomer in the land. He was here, apparently, when all this continent was a wilderness. From the Indians and the pioneer settlers the old chroniclers heard many reports of the horn snake, and one of the most intelligent, if least known, of their interpreters, Dr. John H. Logan, gives in his rare and precious history, published in 1859, a summary of the early accounts of this strange creature which reveals impressively the respect in which it was held.

'Besides the rattlesnake,' says Logan, 'there was one other, in the early periods . . . that is worthy of a brief notice. Around the history of the horned serpent there hangs an obscurity, which, perhaps, no research will ever fully clear away. Some, indeed, have wholly denied that such a reptile was found on the Continent. Others admit its primitive existence and describe it as a curious and harmless creature. There are others, again, who, while they regard it as having once belonged to the catalogue of our native serpents, describe it as possessed of a venom whose fatal energy no antidote was ever known to master.'

To this last group Logan himself adhered. He accepted the horn snake as an authentic member of the early fauna of America, though he believed that it was never common. 'Among the innumerable facts,' he exclaims, 'that may be gathered from natural history illustrative of God's goodness, there are few more deserving of notice than this rareness of a reptile so fierce and deadly as the horn snake must unquestionably have been. Had it been as abundant as the other venomous species, the Indians even, though furnished with their most potent antidotes, could hardly have inhabited the country. It possessed scarcely a single

redeeming feature; there was nothing of the admirable craft of the eyes — nothing of the beautiful changing colors or characteristic magnanimity of the rattlesnake — but with dull eye, insensate skin, and vengeful spite, ready to dart its dreadful sting into every approaching intruder, it lay a horrible compound of all the hated qualities of its race — the incarnation of death.'

The evidence upon which Logan appears to rely is partly the testimony of early travelers like Lawson — who claims to have seen two horn snakes and who describes them as being 'like the rattlesnake, but rather lighter,' as hissing 'exactly like a goose,' and as striking at their enemies with their lethal tail 'armed at the end with a horny substance like a cock's spur,' in which a deadly poison was concealed — and partly the stories of old men and women of his time, who evidently talked much of the horn snake whose sting they considered even more formidable than the rattlesnake's fangs. One such story he relates, upon the authority of 'James Taggart, Esq. and others,' which is admirably dramatic.

'On an afternoon, nearly forty years ago,' he says, 'a party of gentlemen were riding from Abbeville village (in South Carolina) towards the Calhoun settlement, and when approaching the place now known as the Cabins, they passed a dwelling near the wayside, just at the moment when a little girl, whom they had seen to cross the road some distance ahead of them, gave a piercing shriek, and ran back into the house in an agony of pain and fright. Perceiving that something serious had occurred, they hastily alighted to ascertain the matter; and entering the room, found the child stretched upon a bed, and already a corpse. She had lived long enough, however, to whisper to her mother that a snake had struck her while she was in the act of gathering firewood on the roadside. The party

instantly sought the spot, and there discovered a large specimen of the horn snake which they dispatched. The skin of this serpent was stuffed, and preserved by an intelligent gentleman of the neighborhood, and it was long an object of great curiosity at his residence, and afterwards at Old Cambridge, where it was last seen.' The 'intelligent gentleman,' Logan tells us in a footnote, was Captain Thomas Parker.

II

That horn snake was killed more than a century ago. Let us note next another startling adventure of more recent occurrence.

'A man was walking along an abandoned wagon road through the woods,' said the gentleman who told me of this incident, 'when he heard a terrific rustling in the bushes that bordered the road, accompanied by a hissing sound similar to that of air or steam escaping from a small pipe. Looking, he saw coming towards him an enormous snake of a size and kind that he had never before seen. As it was evident from the demeanor of the thing that it meant to attack him, the man seized a rail from an old fence that was close at hand, and, after a battle in which the snake tried with all the ferocity of a tiger to reach him, he killed it. The neighbors were then summoned to view this strange member of the reptile kingdom, and this is what they saw:—

'A snake slightly smaller at the largest portion of its body than a pint tomato can, nearly black in color with dingy white markings, somewhat like the markings of a king snake or thunder snake, but sufficiently different to preclude confusion of the two; whose length was a foot greater than the width of the wagon road across which it lay, and whose tail, instead of tapering to a point, ended bluntly, being somewhat larger than and about the

shape of a man's finger if we imagine the nail removed. The strange make-up of the creature, coupled with its savageness, would have been sufficient to excite the wonderment of the people that saw it. But this was not all. From the extremity of the tail and pointing upward at an angle of about forty-five degrees there protruded a corneous growth the size of a large rooster's spur, an inch or more in length, black, and tapering, like the tail, to a somewhat blunt point. This spur, sting, or whatever it was, was scraped into with a knife and found to be of a composition similar to that of an animal's horn — in fact, it resembled that of a cow in miniature but for the fact that it grew perfectly straight except in its relation to the snake's body.'

Some twenty-five years have passed since this ferocious horn snake of the abandoned wagon road met the end it deserved. But it is not necessary to go back a century or a quarter century in order to find this most dreaded member of the ophidian race. He is apparently just as much a reality to-day as he ever was, and if you will look for him you are sure to find him—not in the woods or fields or waters, perhaps, but virtually everywhere else. The other day I found two horn snakes in a drug store. That is to say, I found them in the sense in which I had always found the horn snake—a gentleman, who was standing near while I was conversing with my friend the druggist, informing me that he had seen two horn snakes in his day and that at a certain place where he had once lived these deadly reptiles were of common occurrence.

He did not go into details, but others often do. Thus there was told a few years ago in a county newspaper the story of the slaying of a mighty horn snake in Rocky Bottom, a horn snake which was promptly held responsible for many mysterious cases of sudden

death among the cattle. This Rocky Bottom monster was nine feet long and as thick as a man's thigh; and the news of its demise brought from a well-known citizen of a neighboring district the statement that he had killed two horn snakes a short time before, one at Big Estatoe and the other at Standing Rock, each of them between six and seven feet in length and 'as large as a man's leg at the knee.' In general appearance, he declared, they resemble a rattlesnake, 'except that some six or eight inches below the neck there are stripes that run up and down, and their heads are thick from top to bottom instead of being broad from side to side. The horns on the end of their tails are something like a cock's spur, except larger, and in the end of the horn is a stinger.' Both these snakes, when shot, acted precisely as did the Rocky Bottom snake, which 'violently brought its tail over its back and stuck it into the ground.'

Not long ago there came into my hands a horn-snake tale which interested me more than most narratives of the sort because in this instance the narrator was known to me. 'I was walking along a narrow path,' said this correspondent, 'when, nearly under my feet, I saw a thick, blunt-headed snake, about two feet long. It was lying in a long loop, head and tail near together. I told my aunt to watch it and I would go to the house and get something to kill it. I found a fence pole, went back, and struck the snake amidships. . . . I took the snake and laid it on the piazza that we might examine it. The appearance was a dull, mottled green, but, on looking closely, it was yellow, with a fine green crossbar over it. Under, where its feet should be, was yellow. I punched the horn on its tail, about the size of a man's little finger, sharp at the end and the consistency of a cow's horn. It is the only snake I have seen that was not afraid and

made no effort to get away. It just lay in the path and its eyes glittered.

'Remembering that, as a child, I had heard the country people say that Hart Island was infested with "hornèd snakes that run after you," I wrote to my father describing the snake. He had heard of them, but never saw one. He asked General X of Virginia about them. General X said they were in Virginia; that they lay in a loop, raising half of the body from side to side, and frequently the sharp horn would catch in a bush or small tree and then it would bleat like a calf when unable to get loose.'

III

Now what are we to think of these and the many other tales that are told of the horned serpent, tales agreeing in many respects not only with one another but also with the stories of the old travelers and explorers, and yet widely divergent as to other details? But first, perhaps, one should ask whether it is permissible to think of these tales at all. The herpetologists and scientists in general are by now so indignant over the irritating vitality of the horn snake that they consider it scarcely respectable to speak of the creature except in terms of opprobrium and ridicule.

That, one may venture to suggest, is scarcely the proper scientific attitude. There may never have been just such a monster as Lawson's horn snake which hissed like a goose and carried death and dissolution in its tail; or Logan's horn snake which so swiftly slew the little girl of the wayside house; or those horn snakes of Virginia which bleated like calves, according to General X. And we may be quite sure that nowhere except in superheated imaginations did there ever exist those even stranger forms of the horn snake which many of the Southern plantation Negroes (and not a few white men) believe in firmly — horn snakes which

take their tails in their mouths and roll along like hoops and have been known to kill trees by striking their horns into the trunks and poisoning the sap. Yet, however impossible these chimeras may be, there is so much smoke here that there must be at least a few sparks of fire; and it should be our business to seek patiently for those sparks, those atoms of truth, for by patient seeking they may all some day be discovered.

One morning there came to me from a certain little town a letter conveying this startling information: 'I am sending you by to-day's express a small sting or horn snake which was killed by Mr. W. McK. of this place yesterday. Mr. McK. says when he struck the snake on its head it came over and stuck its tail or horn an inch or more into the ground. Mr. G. S. says he knows this to be a sting snake as he has seen them before. I hope the one I am sending you will bring some proof that there are such things, but, speaking for myself, I do not know the name of the snake. When the snake was killed his tail was much harder than it is now and more whitish.'

With what trembling excitement I gazed at the box which that letter heralded may easily be imagined. Here, perhaps, was the key to the mystery, the great secret — an actual specimen of the mystical monster, albeit a baby one, about which were told so many tales of terror; the most ubiquitous and yet most elusive of serpents, of which one heard on every hand but which one could never see. Here at last was a horn snake in the flesh! Eagerly I removed the wrappings of the box and, raising the cover, looked in — and beheld the familiar form of *Ophisaurus ventralis*, that little legless lizard which is commonly known as the glass snake (since, having no legs, he looks exactly like a serpent and not at all like a lizard) and which is one of the commonest of American reptiles.

I collapsed like a pinpricked bubble. Never was there a more disappointed mortal. My 'horn snake' was not the far-famed mysterious monster after all, but this little creature which I had known from boyhood, which I had supposed was well known to nearly everybody else, and which, even in its moments of greatest rage — if it ever has such moments — could not do serious injury to a field mouse!

That was a tragic anticlimax; but the minutes that followed brought a lift of the spirits which atoned, in a measure at least, for my first disappointment.

For after all, whatever else it might be, this *was* a horn snake. It was evidently the reptile which in the district from which this specimen came was known as the horn snake; and thinking over the matter, and recalling some of the other descriptions of horn snakes which I had heard, I was convinced that here in this box was the explanation of many of those tales — the atom of truth which was at the bottom of at least a part of that great mountain of fancy and error.

Here, undoubtedly, was the explanation of the small green or greenish-yellow horn snakes of which one hears from time to time and which are supposed to be the young of the species — horn snakes like the one described by the correspondent who mentioned General X with his story of calf-like bleatings. No glass snake ever bleated like a calf, and unquestionably the worthy General had lent too credulous an ear to the Virginia spinners of serpent yarns; but that calf-like bleating was merely an added frill, based upon nothing save hearsay, and the absurdity of which was evident on its face. What interested and pleased me was the fact that here was plainly revealed one source of the horn-snake myth. The mysterious monster, in one of its several forms, had been run down and identified at last.

How has it happened that so innocent and harmless a creature as *Ophi-saurus*, the glass snake, a timid and gentle reptile which feeds on worms and insect grubs and which is less capable than a sparrow of inflicting injury upon a human being, has acquired so evil a reputation that it is feared by many as much as the rattlesnake itself? What is there about the animal which could have given rise to the notion that it bore on its tail an envenomed horn with which it would inflict a fatal wound upon anyone who came within its reach?

The question, instead of being difficult, is really easily answered; and the answer is an odd illustration of the strange and devious ways in which animal myths sometimes originate.

No ordinary normal glass snake would be mistaken for a horn snake and classed among the most formidable denizens of the woods. Before that dubious honor is conferred upon it, the glass snake must undergo a certain transformation. Like many of the lizards which possess legs, this legless and serpent-like member of the family is able at will to discard its tail. The tail is the most exposed portion, the portion most likely to be seized by some pursuing enemy; and when it is pursued and seized in this fashion, perhaps by some larger reptile such as the swift black snake or racer, the glass snake immediately, with a quick, convulsive motion, uncouples its tail which the black snake has gripped in its jaws. The discarded tail, although thus basely deserted by its owner, plays its part loyally. It writhes and wriggles violently in the jaws of the black snake, and some minutes elapse before the latter gets it under control, and in such a position that it may be swallowed. Meanwhile the tailless glass snake has taken advantage of the diversion to make its escape.

It goes on its way rejoicing, and,

even if it knew how to worry about anything, it would not worry about the loss of its tail, because nature can be relied upon to supply a new one. This she proceeds to do; but she is not able, with all her seemingly miraculous powers, to make a very good job of it. The new tail which grows where the old one had been is but a poor imitation of the original. Whereas the old tail formed more than half of the total length of the creature, the new tail is not over two or three inches in length, thinner than the rest of the body, of a different color, and tapering at the end rather sharply to a point. In this changed guise the animal, though still easily recognizable as a glass snake, is strikingly unlike its old self; and it is the glass snake in this new guise, the glass snake which has lost its original tail and acquired this shorter and thinner substitute, which is the feared and fabled horn snake, the sinister villain of so many thrilling stories.

It was a glass snake of this sort — one which had lost its first tail and grown another and much smaller one — which was sent to me as a horn snake; and as I looked at the creature lying in the box and noted the marked difference in size and color between the body of the animal and the thinner, pale-brown tail, hard and horn-like to the touch and somewhat resembling a rather slender, tapering horn or spur, it was not very difficult to understand how the widespread error regarding it arose and how it happens that there are so many truthful and intelligent people who insist, in spite of all the herpetologists in the world, that there is such a reptile as the horn snake because they themselves have seen it.

IV

So far so good; one source of the myth has been discovered. That there are other sources is, however, certain.

The horn-snake stories are divisible roughly into two classes, those that picture the reptile as of small size and of generally greenish hue and those that picture it as of great size and of various clearly marked patterns. *Ophisaurus* the glass snake is the source of the stories of the former group, but it certainly is not the inspiration of the latter, for the glass snake never exceeds three feet in length, while most specimens are much shorter.

Hence the mystery is only partly cleared away, and the more fascinating part remains — the part which has to do with such monsters as the mighty horn snake of Rocky Bottom, with the savage creature of the abandoned wagon road, and with those strange dragons of the early days which move in such awful majesty across the pages of the old explorers. Not even the mad, quivering terror which seizes upon so many persons at sight of a serpent of any kind could transform the little *Ophisaurus* into one of those gigantic ophidian ogres; and we must seek somewhere else the root of the widespread belief, prevalent now as in pioneer times, in the existence of tremendous and formidable horned serpents, some of them longer than a man and a foot or more in circumference.

The pitfalls are treacherous, but there is much that lures the adventurer on. And at the outset let me give, for a good reason which shall presently be made clear, one more excerpt from an old writer — a bit of serpent lore which, for all its fantasy, would be worth remembering if only because of its rare beauty.

‘Between two high mountains,’ wrote James Adair, woodsman, trader, and historian of the Indians, ‘nearly covered with old mossy rocks, lofty cedars and pines, in the valleys of which the beams of the sun reflect a powerful heat, there are, as the natives

affirm, some bright old inhabitants, or rattle snakes, of a more enormous size than is mentioned in history. They are so large and unwieldy that they take a circle almost as wide as their length to crawl round in their shortest orbit; but bountiful nature compensates them the heavy motion of their bodies; for, as they say, no living creature moves within reach of their sight, but they can draw it to them.

‘Nature endues them with proper capacities to sustain life; as they cannot support themselves by their speed, or cunning to spring from an ambushade, it is needful they should have the bewitching craft of their eyes, and forked tongues. The description the Indians give of their colour is as various as what we are told of the camelion that seems to the spectator to change its colour by every different position he may view it in; which proceeds from the piercing rays of light that blaze from their foreheads, so as to dazzle the eyes, from whatever quarter they post themselves — for in each of their heads there is a large carbuncle, which not only repels, but they affirm, sullies the meridian beams of the sun. They reckon it so dangerous to disturb these creatures that no temptation can induce them to betray their secret recess to the profane.’

Thus quaintly wrote Adair, preserving for us a strange legend, current among his Cherokee friends, about the rattlesnake. Now suppose that the rattlesnake had been a rare creature even in the early days, seen by very few white men, and becoming more and more rare until, at a comparatively early period, it became extinct, so that very little was ever written about it except such stories as this of Adair obtained from the Indians; or that of Bernal Diaz, the historian of Cortez’s march, who says in his description of the great temple of Mexico, ‘In that accursed house, they kept vipers and

venomous snakes, which had something at their tails that sounded like morris bells, and these are the worst of vipers'; or that of Thomas Campanius, who declares that in 'New Sweden' there is 'a large and horrible serpent which is called a rattlesnake,' which makes with its tail a noise 'like children's rattles,' and which 'has a head like that of a dog, and can bite off a man's leg as clear as if it had been hewn down with an axe.' Suppose that these queer mixtures of fact and grotesque fancy were all the evidence that we had concerning the existence of the rattlesnake. Is it not highly probable that most of us would dismiss the rattlesnake as a purely mythical monster, a creature which never existed, a being too wildly chimerical ever to have lived on earth?

Certainly it is at least barely possible that we have fallen into just such an error in adopting an attitude of utter disbelief regarding the great and terrible horn snake of the early chroniclers. Their horn-snake stories are in themselves no more fantastic than these early accounts of the rattlesnake; yet we know that there were rattlesnakes in the pioneer days, though they did not bear blazing carbuncles in their heads or bite off men's legs. So, too, it is possible that there were great horn snakes then — real horn snakes, huge and venomous and justly dreaded by the Indians, though we may safely assume that they did not possess all the strange powers attributed to them.

It is only the fact that the rattlesnake was abundant and has lived on to our own day that has saved it from being consigned to the realm of the fictitious. How can we be perfectly sure that in dismissing the ancient horn snake — which, even according to the old chroniclers, was very rare when the white men first came — we have not made such a mistake as that would have been?

V

This theory is plausible enough as far as it goes. But the Great Horned Serpent whose trail we are following is not extinct. On the contrary, there are thousands of persons now living who are confident that they have seen him; and obviously for these modern tales of mighty horn snakes some other explanation must be found. Here should be mentioned, perhaps, an explanation with which some have sought to dismiss the whole matter — namely, the suggestion that the large horn snake of to-day is really the red-bellied snake, *Farancia*, a harmless burrowing reptile, which carries on its tail a tiny needle-like spine. This is much too summary a procedure. While it is possible that both the red-bellied snake and its first cousin *Abastor*, the rainbow snake, are partly to blame for the horn-snake myth, it is certain that neither of these timid and degenerate burrowers is the fierce and terrible horned serpent of so many lurid tales. It is far more likely, I think, that most of the responsibility for that swaggering reptilian desperado rests upon *Pituophis*, the bull snake or pine snake, a superb and regal serpent, one of the kings of his tribe, found in one form or another throughout the greater part of the United States.

So far as I am aware, no one has ever before accused *Pituophis* of such duplicity. Yet there are several good reasons for pointing a suspicious finger at the bull snake, and it is strange that he has never been called to account.

His magnificent dimensions — he is sometimes nine feet long — compare favorably with those of the mighty horn snake of the stories. In the second place, a peculiar arrangement of his glottis enables him to hiss much more loudly than most other serpents, and this at once recalls the many storied horn snakes whose loud hissing was one of their most startling characteristics.

In the third place, *Pituophis* is capable of berserker rages, and a man coming upon him suddenly might well be terrified half out of his wits by this huge, hissing, furious serpent which looks as if it were about to annihilate him, though in reality it is only seeking a chance to escape. In the fourth place, the extreme end of the bull snake's tail is hard and horny to the touch, and, while this horny part is probably never more than a half inch long even in the largest specimens, a half inch might easily become several inches in the eye of an excited man or woman in the frenzy of 'serpent panic.' And in the fifth place, there is historical evidence, apparently overlooked altogether by those who have puzzled their heads about the horn-snake mystery, that the bull snake in former years actually bore the name of horn snake. 'These serpents,' wrote William Bartram, describing the bull snake about a century and a half ago, 'are also called horn-snakes, from their tail terminating with a hard, horny spur, which they vibrate very quick when disturbed, but they never attempt to strike with it.'

All this, together with the fact that bull snakes vary almost as widely in color as the horned serpents of the tales, constitutes a pretty strong case against *Pituophis*. We see in him, I believe, the hissing monster of the abandoned wagon road, the gigantic horn snake of Rocky Bottom, the great horn snakes of Big Estatoe and Standing Rock, and many another horn snake of these later days whose huge size and formidable aspect have excited the fear and wonder of all who saw it; and we may fairly confidently write *Pituophis* down as one of the most important sources of the horn-snake myth.

Yet, even when this is done, all is not yet explained; for *Pituophis* the bull snake, having no venom in him, may frighten but cannot kill men, women, or little children. We learn from Bar-

tram that in his time the bull snake was sometimes called the horn snake; but Bartram declares that the bull snake, a species well known to the country folk, was regarded as harmless; and there existed then, just as there existed long before then and just as there exists to-day, a widespread belief in a huge and deadly horned serpent. Was this deadly creature always and invariably merely *Pituophis* in disguise, transformed into a man-killing monster by the fears of the ignorant? Perhaps. But what of the horned serpent that slew the little girl of the wayside house? And what of the man-killing horn snake of the Indians, whose wound the red men did not even attempt to cure? Were they also deceived by *Pituophis* — those copper-colored children of the forest who lived so close to the wild creatures and were supposed to have such intimate knowledge of them all?

VI

It is a puzzling problem; and though up to this point we have marched along bravely, we must now consider carefully the several paths among which we must choose.

It is possible, as we have seen, — though few will deem it probable, — that there really existed in the early days a distinct species of great and dangerous horned serpent. It is possible, on the other hand, that the huge and supposedly deadly horn snake of the early days was only *Pituophis*, the harmless bull snake, and that all tales, whether old or new, of death dealt by horned serpents are utterly false. Or, disliking both these theories, we may suppose — if we are given to spirited and venturesome speculation — that occasionally there is born into the world, through some caprice of nature, a rattlesnake whose rattle develops abnormally, the rings or segments coalescing and forming a solid spur or

horn; and, bold as this suggestion is, it would explain so much so satisfactorily that, having once evolved it, I cannot bear to give it up.

It is noticeable that in many of the horn-snake tales the reptile is said to resemble a rattlesnake. This is true, for instance, of an especially interesting narrative sent to me by a well-known clergyman who has lived much in the country and who described the killing of a horn snake which was examined carefully not only by himself but also by his wife and his son, seventeen years old, and his two daughters of nineteen and fifteen years.

This snake was bayed in a dry ditch by a fox terrier. 'The snake looked so much like a rattlesnake,' says the clergyman, 'that we caught the dog and I killed the snake, thinking still that it was a regular rattlesnake. When we pulled it out of the ditch we found that it was not a rattler, but that, in place of the rattle, a continuation of the end of the tail was a sharp, flinty, polished horn or point, the hard point or horn being about an inch and a quarter long. The horn was of the hardness or more of a gamecock's spur. It did not stand at an angle to the body of the snake, but was a continuation of it. . . . The horn was not hollow when cut off, as it was. It had no stinger in it that we could see. The snake was the shape and color of a rattlesnake, maybe a little bit duller in color.' Knowing that this snake was 'agin' natur' and that his account of it would be disputed and laughed at, the clergyman kept the carcass, intending to have it preserved and sent to Wash-

ington. But, being busy with his crop, he was unable to go to town, and the odor of the reptile became so prodigious that the specimen was thrown away.

A thousand times I have lamented bitterly the fact that this otherwise excellent clergyman was not equipped with olfactory nerves capable of enduring the utmost agonies of martyrdom. There is no telling what was lost when that precious carcass was allowed to perish. And yet, no matter what secret it might have revealed, the result, after all, would hardly have been decisive. We may strip the mask from the dreaded horn snake and show that there is nothing mysterious behind it — that only little *Ophisaurus* is lurking there, or *Pituophis* the bull snake, or *Farancia* the red-bellied snake, or the rainbow-hued *Abastor*, or, at most, *Crotalus* the rattlesnake, a formidable creature, but long ago described and figured in books and labeled on the museum shelves. Yet, though we thus destroy the myth utterly, it will rise again from its ashes, and the Great Horned Serpent, in all his panoply of mystery and terror, will live on.

He is immortal. Sigurd, when he went out against the dragon Fafnir on the Glittering Heath, had an easy task compared with the man who tries to exorcise this horned ophidian dragon of to-day. As the living serpent, with every change of its skin, seems to renew its youth, so the serpent myths, which man has cherished from remote antiquity, gain new life with every change of form and never grow old or stale, but seem destined to live on, awful and yet vividly alluring, forever.

THE CONTRIBUTORS' CLUB

CASUALTIES OF THE PEN

I ONCE knew a very unhappy fellow. He worked at a publishing house where pulp magazines go down the assembly line like Ford cars. His job was to read and to re-write impossible stories which by a little tinkering could be made possible. Thus they could be bought very cheap. He had another assignment which for a different kind of person could have been quite interesting. Whenever his firm decided to launch a new magazine devoted to a special kind of fiction, such as stories of the sea, girls ransacked the files of former issues for yarns that could, with a little fixing, be reprinted. Very often these stories had to be brought up to date: pearl-handled revolvers changed to automatics, speedy buckboards changed to automobiles, and the general clamor and bustle of modern life introduced in place of the more peaceful atmosphere of an earlier age.

It was this chap's job to do it, and he never complained. For many the job would not have been so bad. But this man was also a writer, and a good writer. The first two stories he had ever written had been bought by a magazine of high rank. That, however, was ten years in the past, and during all that time he had been working steadily, but without a sale. Of all the hard lots in writing, it seems to me he had drawn the most heartbreaking.

Why writing should have such cruel chances I don't know, but of all careers it seems the most naked and exposed. I know that painters will disagree and maintain that they are the true bearers of the cross, but the fact remains that nobody expects a painter to sell anything. He can be a good painter for years and no one thinks any less of him for not making a sale. If a writer is to keep the respect of his family and friends, his name must appear in print, and he must pay his bills.

One hazard arises from the changes in public taste. Colonel Dey, producer of a

fabulous number of Nick Carter stories, shot himself because the Nick Carter vogue went out and he could not adapt his style to the standards of the pulp magazines which took the place of the dime novel. Lucky the writer who does not outlive his vogue. Even luckier the one who actually finds his vogue. The weddings of demand with natural abilities which make the writing fortunes are, as far as I can see, completely fortuitous.

And if the writer is exposed to the changes in public taste and suffers thereby, he has a second and even more dread enemy in himself.

'It is our duty to compose our characters, not books,' says Montaigne, and many a writer, sitting sterile in front of his typewriter, has wondered what inner devil it is that keeps his mind as stirred up and inchoate as a full stand at a ball game. That is why so many of them resort to tricks of self-hypnosis. I once visited in a house which Wilbur Daniel Steele had occupied. His table was an old schoolmaster's desk, and I have no doubt that its presence in the room tickled some obscure chord in his fancy and thus helped to set the stage. But much more interesting were the long, sloping chutes that had been made to fit over the windows. Their wide end was toward the ceiling, so that they could admit light and air, while at the same time keeping out distracting sights and sounds.

Another writer I know works only at night, away from home. Scores of writers are dependent upon a change of scene for getting out of a slump, and many find the change from city to country of great value. I know one fellow for whom the first snow-fall of the year brings a few days of great production.

There is one cruel answer for most of these in-and-out writers, and that answer is that they should not be writing at all. In any other civilization they probably would not be. But somewhere in the Declaration

of Independence it is implied that every American can, if only he wills it, be a successful contributor to magazines. Unfortunately, there was a time when many who had no real grip on the profession could be. The market was big; the universities, with their writing courses and childish standards of success, helped. Many young people have a knack of imitation which in a big market may mean a success or two. And the flattery which in this country is accorded writing success is so heady that, once tasted, it can actually ruin the whole remainder of a life.

The depression has squeezed out many of the writers, just as it has squeezed out those who live on the fringe of other professions. The accumulated disappointment must, in its total, be very great. I think that it is among these people who live on the fringe that temperament is at its worst, and, while many of the steady producers have their peculiarities, they are, generally speaking, producers at will. I am ready to defend the thesis that so-called temperament is not necessary to an artist, and that it is infinitely more harmful to him than to men in more prosaic kinds of endeavor. If the ironworker does not feel like running the job, the job runs him. The business man works under a schedule which pushes him into tasks; if, for a day or so, he does not feel like running the business, the business runs him. But the writer begins fresh every day (with the exception, perhaps, of some holdover in the way of developing an argument or carrying on a narrative sequence). By and large, he has to furnish the push; and on the sour days, when he does not feel like pushing, nothing gets done.

It is probable that the higher one gets in the writing scale the less there is of that hamstringing doubt of self which is at the bottom of what passes for temperament. There seems to be no question that Chaucer was an easy writer, and so were Shakespeare and Richardson and Fielding and Scott and practically all the other masters. Trollope is, of course, the great example of the steady producer. They must all have been extraordinarily well adjusted inwardly, free from the anxiety which comes from trying a task beyond one's powers. The steady slugger is the best bet in prize

fighting, and the steady producer the best bet in literature.

The writer is exposed to the vagaries of the market and he is exposed to the vagaries of his own make-up. There is one other danger which he runs, and in many ways the miseries which arise from this source are the most tragic, for they depend upon what might be called a change in artistic conscience. Many writers never change their professional outlook; their first story is like their last, with the possible addition that the first story is usually the best. Others have to face the handicap of growth and changes in their inner composition, often in the direction of greater artistic integrity. Occasionally you meet a writer whose name used to appear in the popular magazines, and he will tell you that he has given up the 'cheese' and is working on something really good. Often he is whistling to keep his courage up. The change in his mental flora has completely canceled an earlier profitable knack.

Undoubtedly they do these things better in older countries where the philosophy is that of making a sow's ear into a good sow's ear, rather than into a silk purse.

There is a story out of Hollywood which is often told among writers and which is generally received with shocked silence or contemptuous laughter. The story is that of a moving-picture magnate who started life as a maker of buttonholes. One day as he was making a tour of his vast plant he came to a small room in which a young man sat idly before a typewriter. The magnate watched him for a time, and then inquired what the young man's job was. The latter said that he was a writer, and the magnate said, 'Vell, vy don't you write?'

MORE AUGURIES OF PHUDD

LAST summer I told how the people in this quiet valley, at the base of the fir-green hill called Phudd Mountain, foretell the weather neither by barometers nor by reliance on their newspapers, but by such omens and premonstrations as the antick-ing of maple leaves and bullfrogs. This was chronicled as 'The Auguries of Phudd' and was all very well as far as it went. But an autumn has passed since it was written,

and the silence and bitter cold of winter have visited the valley and departed, and I have come to know better the Prophets of Phudd and their fashions in soothsaying. I have become acquainted, for example, with Chaomantic Chants, and I think it is time to tell about these things.

The people of Phudd Valley may appear in the census lists as poultry farmers or dairymen, hog raisers or 'hired hands,' but of course they are no such thing. They are, by instinct and an ancient heritage, oracles and readers of earth omens. In them persists the antique habit of looking wonderingly at the universe, scrutinizing its particles, and finding them big with portent. No thing, to these mantologic friends of ours, is merely what it seems; the small pranks of cats are brimming with cosmic significance, the flutter of a starling's wing has its secret message, and in all the phenomena of earth from dawn to dawn there are bodings to be interpreted.

Small children are wont to live in a shadowland where all the creatures of the world and all the happenings of earth are invested with properties — magic and delightful properties — which parents matter-of-factly decline to see. Here in my small and very aged farmhouse (which looks, to be sure, quite like a farmhouse of some child's imagining) I have come to feel as though I lived once more in just such a shadowland of wonderful implications.

It was in September, I think, that I found the fuzzy black and brown caterpillar. A *very* fuzzy caterpillar it was, and it was progressing laboriously through the white dust of Phudd lane on its way to a mullen stalk. I think this encounter with a traveler so small, so commonplace, so far outside the realm of my human world, would not have arrested my steps for a moment — would scarcely have given the tiniest prick to my consciousness — had not I been overtaken at that moment by old Mr. Valkenburgh. (Mr. Valkenburgh poses in the world as a mower of hay, but actually he is a soothsayer.)

'Ho, ho!' cried Mr. Valkenburgh, peering down at the caterpillar through his steel-rimmed glasses. 'Ho, ho! Caterpillar says winter ends in February.'

He explained the reading of the omen as we trudged along the dusty lane. The

relative width of the black and the brown bands — that was it. I am not able to remember all the details of the divination. But I know that caterpillars — ever since that bright September noonday in the lane when Mr. Valkenburgh hitched up his blue overalls and spoke his Delphic piece — have become for me enchanted things. They are not bristly little worms, but magical presages of future days, hairy heralds telling the secrets of the cosmos to the Prophets of Phudd.

I spoke a little while ago of Chaomantic Chants. You, I suppose, may think of them as rustic adages or proverbs, but if you could hear Grandma Krause deliver them at her dinner table (brandishing her fork the while, as one might swing a censer) perhaps you would feel how deeply rooted they are in Phudd Hill's ancient earth lore. To-day a heavy fog has hung low over our snowy hills, and the hemlocks on Phudd's summit have been visible, when at all, only as the ghosts of trees. I stopped in to see Grandma Krause on my afternoon walk, and I spoke to her of how the clouds were clinging to the hilltop. Had this, I wondered, some significance? (I might have spared myself the wonder, for Grandma Krause, acknowledged Prophetess Superior of all the region, has yet to find the natural phenomenon from which no significance can be wrested.) Solemnly, as is her way, she took her hand from the handle of the butter churn and with her forefinger described a vague arc in the air: —

'Mist on the hills;
Water for the mills.'

I call it a Chaomantic Chant, and you, perhaps, will call it a jingle. 'Mist on the hills; water for the mills.' In my library is an anthology called *Poetry of Earth*; I have found nothing in it to match the simplicity of statement, the earth savor, of the couplets intoned by Grandma Krause. 'Mist on the hills; water for the mills.' Grandma has a hundred such — all to be spoken solemnly, prophetically.

The weather wisdom of the Prophets of Phudd is very old, its roots long lost and scarcely to be guessed.

When at night the roosters crow,
On the morrow look for snow.

How many generations ago did a Prophet,
awake in the frosty stillness of a winter
night, first devise this reading for the omen?
What rhymester sage first proclaimed with
Pythagorean positiveness that

The February day of thaw
Is frost in May, and that's the law?

I do not know the answers to these questions, and neither does the most erudite of our neighboring diviners. But I do know that in some distant time, long before Grandma Krause's grandma was born, there was wrought an enchantment which the passage of the years has not dispelled. In the high hawk hovering above Phudd Hill, in the wind-combed strands of flying clouds, and even in the long lean icicles that hang from my windows, there are secret signs and signals. Yes, even in the icicles, for

The length of the icicle you see
Is how deep to-morrow's snow will be.

As yet I have heard no Chaomantic Chant concerning 'frittling' weather; probably this is because even the most gifted soothsayers have been daunted by a word so unrhymable. When the weather cannot, as some city people say, 'make up its mind what to do,' — when rain and sunlight alternate erratically and uncertainly, — that is what the sages of Phudd call 'frittling,' and an admirable word I think it is. Perhaps, in remote days gone by, one of the forefathers of the valley may have composed a Frittle Chant, but if so it has long since been interred with him in the little burying ground by the side of the lane.

I can remember how, when I was turning from a little boy into a medium-sized one, I was continually being dismayed to learn that my storybook world was all a fraud, that dogs and cats were not able to talk, and that there were no Unseen Creatures lurking excitingly behind lichen-covered boulders and in the great boles of elm trees. But I wonder, now, was I possibly a little too credulous of these disheartening facts, a little too readily swayed by the brisk iconoclasm of science? Here in the countryside of Phudd the caterpillars know how to judge the length of a winter, and last Friday the blacksmith told me that he looked for a stormy week-end. He knew. He had consulted an owl.

There is much to confuse. To-day it has been bright and cracklingly cold. Not a solitary mare's-tail nor the hint of a mackerel have I been able to discern in all the arch of frosty blueness. Yet now, even as I write this paragraph, my black tabby cat has unmistakably begun to scrub her left ear with her forepaw. An urban weather forecaster, confronted by such a deadlocking conflict of portents, might be pardoned for breaking down in utter irresolution. But the sages of Phudd are never at a loss, and I think I have learned to take a leaf from their magic book. To-morrow, I predict, it will fizzle.

MR. HALL PROTECTS HIMSELF

It was all on account of Miss Saunders. She got married, and this meant that Mr. Hall had to have a new secretary, a Miss Olney who turned out badly. Although she took dictation well, typed neatly, and was an expert with the files, she had one fatal weakness. She could n't say no to people who wanted to see Mr. Hall. Whether it was an excess of politeness or a lack of firmness makes no difference. The fact is that practically everybody who made the attempt managed to get into Mr. Hall's private office and talk to him.

Insurance agents got in most of all. In the first four days of Miss Olney's tenure eleven agents interviewed Mr. Hall. Since a classmate had always handled all his insurance, Mr. Hall refused them all, but not until he had listened with admirable patience to their various plans, for, like his new secretary, he had n't the slightest conception of the art of getting rid of people — a knack which one is either born with or not. Miss Saunders, of course, had always done that for him.

At ten o'clock Friday morning when the twelfth agent walked into his office, Mr. Hall knew instantly that he was a changed man from the day before. Almost all people are like that. They make no preconceived plan, but suddenly, when they are confronted with a recurring situation, something inside of them says: 'Handle it differently this time.'

Mr. Hall said: 'Insurance?'
The man nodded.

'Good!' said Mr. Hall, and the agent beamed. 'I need it.'

'I feel certain —' began the fellow.

Mr. Hall cut him short. 'I want insurance against insurance agents.'

The salesman laughed. 'I suppose people do sometimes think that would be a good idea,' he admitted.

'You think I'm joking,' said Mr. Hall abruptly, 'but I'm not. I mean just what I say. I want to take out a policy against insurance agents. I want a policy where I pay so much a year — probably a pretty high rate. Then, if insurance agents get into this office, your company pays me a flat sum. Let's see — I think I'd like one for ten thousand dollars. What are your rates on that?'

'My company is merely life and endowment,' said the insurance man, eyeing Mr. Hall uneasily. 'We would n't —'

Again Mr. Hall interrupted him. 'Well, then, get me a policy from a company that does. You agents coöperate, don't you? You can share the commission with some friend of yours in an insurance-agent insurance company, can't you?'

'I know of no such company,' replied the salesman with dignity. 'I don't think there are any.'

'What! There are n't any! How about Lloyd's? Does n't Lloyd's insure against triplets, and rain, and shipwrecks, and Bobby Jones beating everybody at golf? You mean to say Lloyd's could n't insure me against a simple thing like insurance agents?'

'I doubt it,' said the man.

'Ridiculous!' sputtered Mr. Hall. 'Of course they would! You're just too lazy to find out. That's the trouble with all you fellows,' he continued, liking the feel of the bit in his teeth. 'You have n't got push. And that reminds me. When you see the Lloyd's representatives —'

'I'm not going to see the Lloyd's representatives.'

'When you see them,' reiterated Mr. Hall, 'I want you to find out about some other

policies. I want to see what their rates are for insuring my radio from going bad when I'm listening to the opera. I want my watch insured against being slow when I have to catch trains to Chicago. I want to be insured against my wife's going into no trump when she should continue my suit — against my son getting fired from college — against friends telling what a good time they had on Saturday night.'

'I'm sorry,' said the salesman coldly, 'but I know of no company that handles any of the things you mention.'

'In that case,' said Mr. Hall, 'good day.'

When the fellow had gone, Mr. Hall summoned Miss Olney. 'If any more insurance agents show up,' he commanded, 'send them right in. After all, insurance agents have got to earn a living just like anybody else, have n't they?'

'Yes,' said Miss Olney. 'Of course.'

MAN ON A BUS

(Sonnet, answering to its definition in the Oxford Dictionary: 'Poem of 14 lines, usu. rhyming thus: *pig bat cat wig jig hat rat fig; lie red sob die bed rob or lie red die bed pie wed; or otherwise . . .*')

FAT, jellied, creased, and naked, like a pig,
 Unaired and damp, nocturnal as a bat,
 His face hangs like a bulb; slick as a cat
 His hand curls up his cheek, explores his
 wig;

The slight vibration starts a kind of jig
 In his soft chins; beneath his trembling hat
 Move tiny eyes, flat red eyes of a rat,
 And open mouth, a purple, swollen fig.

This loose indecent mass one day shall lie
 Hushed and at peace, stilled eyes no longer
 red,

And with a private dignity shall die
 Mutely along his own familiar bed;
 So this great paste, this ill-conditioned pie,
 This man, his own high universe shall wed.

JUSTINE CHASE

The Atlantic

INDUSTRIAL PORTFOLIO

A STUDY OF 12 BASIC INDUSTRIES IN COOPERATION WITH

GENERAL MOTORS CORPORATION
AUTOMOTIVE INDUSTRY

GOODYEAR TIRE AND RUBBER COMPANY, INC.
RUBBER INDUSTRY

STANDARD OIL COMPANY OF NEW JERSEY
OIL INDUSTRY

GENERAL ELECTRIC COMPANY
ELECTRICAL EQUIPMENT

JOHNS-MANVILLE CORPORATION
BUILDING MATERIALS

UNITED STATES STEEL CORPORATION
STEEL INDUSTRY

LIBBEY-OWENS-FORD GLASS COMPANY
GLASS INDUSTRY

CONTINENTAL CAN COMPANY, INC.
CONTAINER INDUSTRY

GENERAL MILLS, INC.
CEREAL PRODUCTS

NORTON COMPANY
ABRASIVE INDUSTRY

NATIONAL DAIRY PRODUCTS CORPORATION
DAIRY PRODUCTS

KIMBERLY-CLARK CORPORATION
PAPER INDUSTRY

Each of the papers published in the series by Arthur Pound represents one chapter from the author's forthcoming book—INDUSTRIAL AMERICA: ITS WAY OF WORK AND THOUGHT. Of particular significance to ATLANTIC readers is the fact that, in preparing these articles and presenting them as advertising, Mr. Pound has been given every assistance by the staffs of these corporations in collecting his materials and in verifying his facts. His series of interpretations therefore have the distinction of being in every instance authenticated at the original source.

POURING IDEAS INTO TIN CANS

*Continental Can Company Rises through Applying New Methods
to a Standardized Industry*

BY ARTHUR POUND*

I

IF one were searching for examples of the old and new to illustrate the swift changes of our common life through the past century, he need not look beyond the oldest business in the world — retail merchandising, and particularly the grocery store, around which revolves community life at its simplest. Fifty years ago the food and general supply store kept its staple goods in wooden barrels, with an overflow stock in a dingy back room. Barrels of molasses, vinegar, sugar, flour, pickles, kerosene, crackers, and vegetables stood about on the floor. Over these would bend a clerk probably wearing a soiled apron, with a ladle or scoop in his hand, presently to return with his order in a paper bag or wooden dish over which he placed a piece of wrapping paper. Almost the only packaged goods on the shelves were flavoring extracts, cans of salmon, meat, and condensed milk, together with a few articles in wooden or paper boxes.

Enter a similar store to-day. No barrels in sight. Even that familiar human type, the cracker-barrel philosopher, has gone. More than half the store's merchandise is on shelf display, packaged to be handed out in the twinkling of an eye. The contents

*Fifth in a series of advertisements on Industrial America: Its Way of Work and Thought.

have been protected by a container against most of the insanitary accidents of transportation and handling and against adulteration or substitution by unscrupulous dealers. The container is the key to modern merchandising and the basis of its guarantees. Each year sees more packaged goods consumed and more sorts of goods vended in containers and steady progress made toward improvement of both the package and its contents, a trend certain to continue because the public finds in it increasing satisfaction, confidence, and convenience. Try to think of any article which, once packaged, has been returned to bulk handling. In thousands of instances the public has voted with its nickels and dimes for container merchandising.

If an observer could step from the 1880's to the present, he would be struck by the presence in amazing variety and quantity of an object now so common that it is taken for granted — the tin can. The few packaged products found in the old-time stores were for the most part in bottles, cartons, and boxes. Now the tin can dominates the food trade, appears decisively in many other lines, including paints, varnishes, pharmaceuticals, cosmetics, polishes, and so forth, and is being adapted to use on more and more prod-

ucts of common sale. Our old-timer, transplanted from one era to another, would fall to wondering how such quantities of tin cans were made, and especially how they could be manufactured with such unvarying success that perfect protection of their contents could be guaranteed.

The spick-and-span store of the present is possible only because in spick-and-span factories, spaced widely over the country, tin cans are being turned out with almost lightning rapidity from tin plate, which consists of a thin sheet of steel coated with pure tin. The cleanest metal-working operation known to an industrial age must surely be that of a can factory. Let us visit one of Continental's modern can plants. A door is opened and the visitor steps through into a sunny room, the air of which seems full of blinding beauty and deafening clatter. Thousands of brightly shining, eloquently tinkling tin cans chase each other through automatic machines and along overhead conveyor systems. Each contributes its small voice to the rattling clamor; each adds its glinting surface to a kaleidoscopic motion picture. The frame of the pattern holds steady, the lines march unbroken aloft and aloft, but each scintillating little soldier dances and sings as it moves, step by tiny step, through this amazing factory.

It is a scene to delight a modernist painter, alert for new combinations of light and shade in flashing motion. Not soon to be forgotten is the orderly beauty of simple, everyday objects, multitudinously on the march and singing as they travel automatically toward their utilitarian destiny. No hand touches them after they pass from slitting machine to storehouse; in fact, no hand has touched the inside of one of them since the tin plate sheets, two tons to a bundle, left the mills.

Comparatively few persons super-

vise the automatized operation of this plant. This must be 'the can maker's paradise.' On each of fifteen lines 325 cans may be made every minute of the working day, with 7,000,000 a day a mathematical possibility under continuous operation. Some of Continental's thirty-two can-making plants are larger than this one in volume, some smaller, but all reveal a high efficiency combined with speed. Celerity is the word which from first to last characterizes can making.

In a specialized plant like this one a high degree of automatization is attained. The cans are cut, shaped, soldered, sealed on one end, and tested under pressure by machinery more sensitive to flaws than human eye or hand. The last of the hand processes to yield to machinery was soldering. An expert task in craftsmanship was this one of soldering the outside of the seam of an open cylinder as it swung in front of the operator; occasionally one sees this skilled hand operation in a 'general-line' plant, when a wide variety of orders, some of which are too small in quantity to justify the high initial cost of extreme automatization, has to be filled. Whereas a specialized plant may make only one or two shapes, the general-line plant often has a hundred shapes and sizes in process at once, ranging from 110-pound coffee drums and 50-pound lard cans to tiny sample containers.

II

Greatest volume is reached in manufacturing cans for packers of food-stuffs, greatest variety in general-line cans for other goods. Continental's thirty-two can plants may be classified as follows: twelve packers' can plants; fifteen general-line plants; and five combination plants.

The can opener in the kitchen is still the foundation of the business in spite of growth in other lines. Packers' cans

are made in or near railroad centres from which transportation lines radiate to important food-growing areas. Both for canners and for can makers, even slight freight-rate advantages are important; as a result, the industrial map of canning operations and can making is dictated largely by the geography and timing of plant growth. Food packing and can making tend toward locations near the growing or producing areas suitable for quantity packs. The largest of these packs consists of evaporated and condensed milk; pineapples, pears, peaches, apricots, cherries, and grapefruit among the fruits; corn, peas, tomatoes, and beans in the vegetable world; soups in all varieties; and salmon, the most popular product of our fisheries. The average reader may be surprised to learn that although Maine, the original corn-canning state, still holds a proud place, the large-volume packs come from Iowa, Indiana, Ohio, Maryland, Minnesota, and Illinois; that California's peaches, better eating after canning than before, are used almost exclusively for commercial canning—very limited quantities of the celebrated Michigan and Georgia peaches being available in the package-goods market; that the largest quantities of tomatoes come from widely separated areas—California, Missouri, Arkansas, Indiana, Ohio, Kentucky, Tennessee, and the Atlantic seaboard area of southern New Jersey and the Delaware peninsula, composed of Delaware and the eastern portions of Maryland and Virginia. Wisconsin and New York are the largest producers of peas for canning.

This picture changes with weather and climate variations, discovery of new insecticides, development of fertilizers, opening of new lands to packable crops, improvement of seeds, and acceptance by growers of changes from traditional to scientific methods of agriculture. In the canning industry the

plants are usually located in the small villages or towns close to a favored crop area. The can maker tends to follow the packer, spacing factories widely instead of concentrating operations. Both are answering the call of the land and the dictation of seasonal swings beyond the control of man.

Neither the canner nor the can maker, however, accepts Nature fully or blindly. The former stirs his contract farmers to improve yields in quantity and quality. His agricultural experts advise farmers and market gardeners on crop rotation, tillage, drainage, spraying, and seed selection. Many canners grow and distribute seed to growers, conduct long-range experiments in plant variations, inspect fields of ripening crops, and fix the day and hour when the crop should be gathered to ensure first quality. The old belief that only cull crops go into cans has become a myth; the fact is that the yields of the best acres go with the least possible delay to the plant and into tin cans. It could hardly be otherwise, with processors guaranteeing their products and profits depending on high-speed, continuous runs through short periods, conditions that make the best product infallibly the cheapest.

Another element reënforcing geographical spread is the stark need for prompt, almost instant, service. The food packer cannot wait; it is now or never with him. If his delivered crop exceeds his estimates, he must get containers by rush order. His commercial life hangs on the outcome of his shout for cans. In the case of general-line plants the need for supplies on the instant is not so acute. Nevertheless, canners want containers when they want them—*pronto* and no fooling! As a result, Continental Can Company, Inc., has packers' can plants in ten states, general-line plants in ten states, and combination plants in four states.

III

Organized with the modest capital of \$500,000 in the fall of 1904, Continental acquired the patents and goodwill of United Machinery Company of Rochester, New York, which had developed a line of improved can-making machinery. With these machines it equipped plants at Syracuse and Chicago, natural centres for can manufacturing because at these points radiating railways tap rich agricultural sections. Shortly thereafter the Company established its third plant at Baltimore. In 1909, seeking assured supply of raw materials, the Company bought the Standard Tinplate Company at Canonsburg, Pennsylvania. In these five years occurred a technical change of great importance, the shift from the soldered end to the sanitary or double-seamed end now in general use. Under the leadership of its founder and first president, T. G. Cranwell, Continental quickly re-equipped its plants to meet the new situation. Later growth to present proportions has been partly through internal expansion and partly through merger.

Thus far Continental operations had been confined to packers' cans, a highly seasonal business with acute demand from April to October, followed by a comparatively slack season of almost six months. General-line business, on the other hand, is steadier; and corporate stability could hardly be gained without it. So Continental entered the general-line field in 1912 at Chicago.

In 1917, with canned goods in demand by the army, there arose the plant at Clearing, Illinois, near Chicago, now the Company's largest operation. Another development of that year was doubling the factory facilities at Syracuse, New York, for the manufacture of can-making and can-closing machinery, the latter designed for installation in packing plants for closing

the cans after filling. This meant that Continental could offer its customers machines progressively adapted to every improvement in can design and built to meet particular needs. It became possible to increase the guarantee ratio, now surprisingly high. Continental guarantees 998 out of every 1000 packers' cans it delivers to fruit and vegetable canners.

The war induced a marked change in the food habits of the people, the net effect of which benefited the canning industry. After hostilities ceased, the letdown in this industry was less marked than in some others. The public had become educated to the use and convenience of canned foods, with the result that, with the return of peace, these foods continued in popular favor.

The activities of the twenties reflect particularly the energy and foresight of Carle C. Conway, a Vice President since 1913, who became First Vice President in 1923 and President in December 1926. A piano manufacturer by prior experience, Mr. Conway had long been interested in Continental as a large stockholder. When he became the Continental leader, his vision and driving force soon made themselves felt in vigorous growth. Details of can making and can selling were left to two veterans who had long been in the Company's service, Messrs. F. A. Prahl and S. J. Steele, Vice Presidents in charge respectively of manufacturing and sales, while Mr. Conway concentrated on enlarging both his company and the markets served by it.

Other officials added to the organization in this period included J. B. Jeffress, Jr., in 1923, as Secretary and Treasurer; J. F. Hartlieb, in 1927 (now Vice President in charge of budgets, credits, and Chairman of the Finance Committee); and I. W. England, in 1928, as a Vice President (now in charge of advertising). Long tenures in office are the rule with this company.

A new general-line plant was built in Jersey City in 1920. In 1926, operations began on the Pacific Coast, which have now reached large proportions. The first Coast plant, acquired at Los Angeles, was expanded two years later. Early in 1927 the Company began can manufacturing at Seattle, where, in addition to the usual output, a special process is used to meet the needs of the Alaska salmon packers. Flattened can cylinders, open at each end, are made at Seattle, shipped to Alaska, and there re-formed into cylinders, bottomed, filled, and sealed — an interesting adaptation of means to an end called forth by transportation costs limiting bulk cargoes in Alaskan trade.

The big year in Continental growth — 1928 — saw expansion in many directions, the most important being the absorption of the United States Can Company, a move which introduced into the Continental organization Mr. O. C. Huffman, President of the Company since 1930 in succession to Mr. Conway, who then became Chairman of the Board. Mr. Huffman had manufactured cans since 1903, when he organized the Virginia Can Company at Buchanan, Virginia, selling most of the stock to farmers. The youthful founder received \$100 a month salary and had to fight with his farmer stockholders for that. Virginia's original stock ultimately became a valuable investment for those who clung to it over a long period of years.

Volume of business grew, and Virginia Can later became the United States Can Company, operating plants at Cincinnati, Baltimore, East St. Louis, Roanoke, and Chicago. By 1928 the latter company reached the position of third largest can producer in the United States. In the rapidly growing Southern trade Mr. Huffman's company occupied an especially strong position, which Continental has held and strengthened since the merger

by locating plants strategically with relation to sectional demand. Mr. Huffman brought to Continental not only practical manufacturing experience but also a broad comprehension of the part which the manufacturer should play in promoting the welfare of customers through intelligent servicing methods.

About fifteen additional can-making plants were added in 1928 and 1929 to the Continental ensemble, and the Company took over two machinery firms: Seattle-Astoria Iron Works at Seattle, makers of automatic machinery; and McDonald Machine Company of Chicago, makers of metal-cutting presses and of the all-important can testers, which perform a most delicate operation in the automatic process.

IV

Continental pursues and encourages scientific research with unremitting activity both inside and outside its own organization.

It has for many years contributed substantially to the National Canners Association, which organization has, among other things, rendered a constructive service in research and improvement of the products of the canned-foods industry. The Association is also the sponsor of the comprehensive work on vitamins in canned foods conducted since 1924 by Columbia University scientists under the direction of Dr. W. H. Eddy, which has resulted in valuable contributions to the knowledge in this field.

Continental maintains research fellowships at the Mellon Institute of Industrial Research, Pittsburgh, devoted to research on foods.

At Chicago, a laboratory with a large staff of chemists and technicians skilled in the canning art is maintained. Not only is research conducted in connection with the solution of Company problems pertaining to special enam-

els, lacquers, coatings, and so forth, for cans, but in addition studies are constantly carried on to improve methods of canning all food products. These technicians, as well as those stationed on the Pacific Coast and at New Orleans, Baltimore, and Syracuse, make frequent field trips rendering 'on the spot' assistance to canners in the solution of their problems as the need arises.

Broadly, this organization offers expert counsel not only on better canning methods for packs of well-known products, but in the development of canning technique for preserving the newer or specialty items which are being added continually to the long list of fine food products available the year round in cans. A completely equipped bacteriological section is also at the service of Continental customers at all times.

In addition, the Company operates control and metallurgical laboratories at Canonsburg, Pennsylvania, and laboratories for chemical and mechanical research and development at Syracuse, New York.

V

In contrast to the highly standardized production in packers' cans, general-line can making develops many variations. The desirable container in this field is one which will help sell the merchandise it holds, and its success depends not only on economy and safety, but also on ease of use, better display value, and all-round attractiveness. A chief consideration is to develop cans which catch and please the eye, while meeting adequately the practical needs established by the nature of the product to be sold.

The Development Department of Continental studies customer container problems from two angles. Does the present container provide ideal protection? Does it help to sell the mer-

chandise? Failure in either respect means that Continental suffers with its customer, while success benefits all parties. Merely changing the shape of a container from flat to upright may double sales, because the new article is no longer hidden on the merchant's shelves. Adding an easy pouring spout to a tooth-powder container may help a manufacturer over his marketing barriers. In some instances the Development Department conducts surveys of retail conditions as they affect a certain product, takes the results to a manufacturer, and with his staff works out a new approach to the market.

Recently Continental's experts, in coöperation with the Dairy Division of the Department of Agriculture, undertook experiments looking toward a new method of marketing Cheddar cheese, as one way of relieving overproduction of milk. Cheddar has suffered in trade because the usual large, round units develop waste and deteriorate through rapid drying and rind formation. The quality which gives Cheddar its snappy taste, a certain gassiness, rendered ordinary containers useless. By the invention of a valve-vented can, an entirely new departure in can making, the problem has been solved. In the top of the can is a vent, so arranged that it releases gas at a low pressure without admitting air. This unique package of cheese will soon be on the market, the six months' aging process being now under way. A new delicacy becomes available in a package which ensures dependable freshness without waste and makes possible a complete guarantee of quality and trade identification. Other gas-forming products may eventually be marketed in this unique valved container.

Following the trend toward greater demand for tooth-powder containers, Continental designed a new can with an improved dispenser, making it an

outstanding package in this field. The trial order for the above package, less than nine months ago, was for only 50,000 containers, since when 3,000,000 have been sold. Many similar requests flow into the Development Department from buyers, with the result that this division must be alert to the trends in modern packaging. In the ever-changing picture of general-line can manufacture, a novel departure which catches on means substantial and steady gains.

One of Continental's new ideas, so new that it is not yet in assured production, is the window-top can, long a will-o'-the-wisp arousing keen pursuit but only lately brought into the realm of practical attainment. In the glass-top can Continental unites the protective qualities of the tin can with the visibility afforded by the glass top, producing a container which, while judged too expensive for universal use, is effective as an inspection sample. Through this method of display, sales of canned foods in certain test campaigns have been stimulated 300 to 400 per cent.

VI

An innovation which rose to impressive volume within two years is canned motor oil. Progressive refiners realized that there was a vast market of buyers unable to distinguish between various grades or brands of oil. Taught by experience and advertising to ask for their favorite oils, they could not be sure of getting what they wanted. The fruits of extra care in refining, painstaking oil research, and strenuous advertising remained in jeopardy unless lubricants went to the customer in sealed and tamper-proof containers, the contents being drained into the crankcase under the eye of the purchaser.

In this conclusion not all refiners agreed, but it did not take long to con-

vert most of the skeptics. The first canned oil came to the market early in 1933, yet within two years over 200 oil companies were packaging a sizable proportion of their motor lubricants. More than 65 per cent of oil dealer stations now handle canned oil. In 1934, the second year, authoritative estimates indicate that approximately 350,000,000 quarts of motor oil were sold in cans, about one fifth of total production.

In cans the motorist gets the oil he wants and pays for — in grade, measure, and brand. Dealers find these advantages: fewer complaints, cleaner and easier handling, and a reduced investment in stock as between a 55-gallon drum and a case of 24 quart tins, or a wider stock of popular brands on the same capital. Lithographed cans, bright with color, offer the first chance to display oil attractively. Canned oil has sharpened competition by enabling the refiner to place his goods in thousands of new outlets, but at the same time has lifted the motor-oil trade to a higher plane.

A primary reason why canned oil caught on so quickly is this: Continental took its advantages directly to the public through national advertising. Converted to the new idea, motorists came forward to demand canned oil, and the innovation became an assured success almost overnight.

VII

National advertising by the can maker to the ultimate consumer was itself a novelty. Hitherto, can makers had relied almost entirely on trade papers, concentrating on potential can buyers and overlooking ultimate consumers, leaving the latter to be cultivated by the National Canners Association (composed of food canners) and individual packers. Continental joined forces fully with the canners in these

joint efforts to educate housewives to the advantages and merits of the more than three hundred kinds of foods and delicacies available at all seasons in tin cans and to break down the old and unfounded prejudices against their use. While continuing its coöperation with the Association, Continental undertook to carry this work of education further on its own account. Advertising texts and illustrations emphasized the point that health and freshness are sealed in cans which preserve indefinitely the food values of fruits and vegetables canned within a few hours after leaving the field. During summer months Continental called public attention to the fact that, while Nature was at its best, products of farms, gardens, and orchards otherwise unavailable were being canned for winter use.

Acquainting the public with Continental as a service organization, helpfully joining its own interests with those of the many great industries which it serves, is another objective of Continental advertising. As business develops in size and complexity, producers of hitherto unregarded elements in an assembled product are more and more seeking a direct approach to a public mind appreciative of value, cleanliness, and design, and increasingly interested in the practical aspects of

industrial coöperation. All these objectives have been realized; canned oil has already become a standard product, housewives reacted favorably to the messages on the uses and merits of canned foods, and the public understands better than it did the part which the tin container plays in the nation's mercantile and industrial processes.

In its consumer advertising, as in other departures from standard practice, the controlling thought is benefit to Continental's customers, as Continental's progress goes hand in hand with that of its patrons. Alive to the wisdom of change, and alert in research and developing new products, in machine improvements, in anticipating customer requirements, and in advertising, Continental drives ahead with vigor in its efforts to stimulate the broad array of American industries which use its products in ever-growing quantities.

Unless all signs fail, the ultramodern store of to-day will seem hopelessly antiquated fifty years hence, as out-of-date as an old-fashioned country general store is to-day. But one thing is certain: the store of the future will hold containers in even greater variety than at present, and the tin can will without doubt still be an important factor in the commercial and domestic life of America.

Copyright 1935, by The Atlantic Monthly Company, Boston, Mass. All rights reserved.

Some of us owe our wives an apology

The apology should come from all those men who have poked fun at the bride's use of a can-opener. For now we learn that canned foods are among the most healthful things we eat. This is because canning protects the precious vitamins and mineral salts. Whenever food is cooked in the presence of oxygen, as in an open kettle, some of the vitamins are lost. But when food is canned, it is cooked right in the sealed container, with oxygen excluded, and so the vitamins are retained intact. Thus, each can becomes its own miniature sealed cooking kettle, with nature's original freshness and goodness sealed in at their peak, awaiting your enjoyment. Continental Can Company, New York, Chicago, San Francisco.

Health and Freshness **SEALED IN CANS**



Continental Can Company

PRODUCED BY UNIVISION
ELECTRONIC REPRODUCTION PROHIBITED

THE CONTRIBUTORS' COLUMN

DEAN of Teachers College in Columbia University since 1927, **William F. Russell** ('So Conceived and So Dedicated') surveys the contemporary scene with the detachment of a vigilant observer whose conclusions are founded, not on emotion, but on philosophical scholarship. **Lord Howard of Penrith** continues the recollections of his adventurous youth in this account of 'Great Men and Small' whom he has known. He is remembered by all Americans as Sir Esme Howard, Ambassador from Great Britain in the twenties. Δ No one is more competent to speak on railroads than the president of the Burlington Lines, **Ralph Budd**. We commend 'Railroading Moves Ahead' to everyone awake to the possibilities of all that lightweight high-speed trains may accomplish.

A large public has been thrown into a retrospective mood by the recent death of one of America's great men. His life has been pronounced full and significant. The large public glories in the acknowledgment of this. There are certain aspects of his character known perhaps only to his inner circle of friends. It is with the hope of revealing both the tenderness and the boyishness of the nature of Oliver Wendell Holmes that one of his long-time friends, Mrs. **William E. Cushing**, offers 'The Gallant Captain and the Little Girl.' Δ 'Hard Times and the Author' is a subject which an editor understands with even greater comprehensiveness than any individual author, and which **Edward Weeks**, editor of the *Atlantic Monthly Press*, has studied with constructive fervor. Δ The **J. N. H.** who penned 'Wartime Verses and Peacetime Sequel' will be readily identified by friends of the *Atlantic*. **George E. Sokolsky** has turned from the Far East to more intimate problems, of which 'The Irresponsibility of Labor' is one. He is at present touring the country collecting further data. Δ 'The Betrayal' portrays another aspect of the labor problem, by **Leane Zugsmith**, a young writer who 'hopes some day to see and really to know the West and the South and the East and the North of the United States, with New York City as the permanent address.' **Kenneth Horan** ('Design for Darkness') is conductor of the book page in the *Chicago Journal of Commerce*. In response to a question in the *Atlantic's* letter of acceptance came this telegram: 'AM

IRISH WOMAN FORTY-FIVE STOP THEY NAMED ME KENNETH BECAUSE THEY WANTED A BOY.' Later the mail brought a note: 'Your letter has opened the gates of Heaven to me. I have been through so much suffering and have touched such depths of despair, with the awful realization that I might be permanently blind, that your gentle and heartening words brought a new outlook to me for my life. More than that no human being can do for another.'

No one except Bernard Shaw (who is an Irishman) writes so wisely about the English as a Frenchman, **André Maurois**, who, in celebration of His Majesty's jubilee, adds to his long list of English biographies 'George V and the British Crown.' Δ Now that our intrepid traveler, **Glanville Smith**, is safe at home again in Cold Spring, Minnesota, we can only hope he is enjoying as pleasant weather in May as his 'November Spring' in New Zealand. **John Holmes** ('Legend and Truth') teaches courses in English composition and modern poetry at Tufts College, in addition to publishing his own distinguished verse.

Josephine W. Johnson is one of the *Atlantic's* favorite authors. Her poems and stories, of which 'John the Six' is her latest, have appeared regularly since 1931, when she was all of twenty-one years of age. **George W. Gray** ('New Eyes on the Universe') is another familiar name, his illuminating articles on science having enlightened lay readers for over a decade. Δ 'The Dear One' concludes the latest series of English sketches by **Henry Williamson**, winner of the Hawthornden prize in 1927 for his novel, *Tarka the Otter*. **Herbert Ravenel Sass** describes himself as 'a fickle person with three loves — human characteristics, Southern history, and natural history,' all three the themes of various published books. In connection with 'The Great Horned Serpent' he adds, 'all myths are true in a sense. For instance, the myth about the power of snakes to fascinate. They have always fascinated me.' **Arthur Pound** ('The Industrial Portfolio of Industry') sustains in this unique series the reputation which he established a decade and a half ago with the publication of his 'Iron Man' papers in the *Atlantic*.